Modern Phonony



Seems Roebuck and Co., Chicago



WE GUARANTEE

that each and every article in this catalog is exactly as described and illustrated.

We guarantee that any article purchased from us will satisfy you perfectly; that it will give the service you have a right to expect; that it represents full value for the price you pay.

If for any reason whatever you are dissatisfied with any article purchased from us, we expect you to return it to us at our expense.

We will then exchange it for exactly what you want, or will return your money, including any transportation charges you have paid.

SEARS, ROEBUCKAND CO.
CHICAGO



This Plumbing Goods Catalog Is Made Up of Pages Taken From Our Big General Catalog Pictured Above

For your convenience we have printed and bound the Plumbing Goods section of our big General Catalog separate from the other pages of the Big Book.

Our Big General Catalog Offers You the Merchandise of All the World

If you have no copy of our big General Catalog, we earnestly advise you to write for one. A copy will be sent free of charge. You will find it at once one of the most entertaining and most profitable books you ever owned. Entertaining because, resting comfortably in your home, you may spend hours in the wonderful array of merchandise shown on its 1638 pages. Profitable because you will save money on every item you buy from it.

Our big General Catalog is literally a great department store. For, as the modern department store is a house of wonders, crowded from cellar to roof with the product of the

world's workers, so is our big General Catalog a book of wonders. For in it are pictured and described goods literally gathered by our buyers from every part of the globe.

Almost everything you can think of which you need—almost every luxury which you may desire—is found there in amazing variety. All is of guaranteed high quality, all at prices which mean worth while savings to you. You shop there with infinite comfort, without effort, in your leisure moments. And you buy with the absolute assurance that you will be wholly satisfied with what you receive.

Ever Ready Water Supply Outfits



Fresh, Pure, Running Water at the Turn of a Faucet

TOP carrying water for the house, for the stock, for the garden. An Ever Ready Water Supply Outfit will force the water through pipes anywhere you want it. The water in the pressure tank, located in your basement or buried in the ground, will not freeze in Winter, or grow warm and stagnant in Summer. The pressure tank furnishes a reliable fire protection, too, for it will lift the water as high as 100 feet if desired.

Easy to Install Ever Ready Tank Outfits

Practically all of the hundreds of outfits we have sold have been put in by our customers themselves. We send full and plain directions for installing and operating. Satisfaction guaranteed or money back without question.

How Much Water Do You Use?

Of course, the size tank to order depends on how much water you use daily and how often it will be convenient for you to pump. The size generally ordered for HAND pumping is a 220-gallon tank outfit like our No. 42N2044½ on the opposite page. On pages 4, 5, 6 and 7 we show numerous power outfits for windmill or engine power. Remember, the average family uses from 75 to 150 gallons of water per day in the house alone.

If your basement, or wherever you wish to place the tank, is not high enough for a vertical tank, we have similar horizontal tanks shown on the following pages.

Our outfits come complete with the fittings shown in the pictures on the following pages. But you will, of course, need pipe running from the tank to your well or other water supply, and to your house fixtures. This must be ordered extra.

How to Figure the Pipe Needed

Our SHALLOW Well outfits are for places where the water in the well, spring or stream is not more than 22 feet below the level where you place the pump. For these outfits you will merely need enough 14-inch pipe (No. 42N571114, page 23) to reach from pump to within 1 foot of bottom of well; enough 1-inch pipe to run from pump to tank, if these are not set close together, and enough 3-inch pipe to run from tank to the house fixtures. Also order a 14-inch foot valve (No. 42N5670, page 33) for end of pipe in well.

If the water in your well is more than 22 feet below the pump, you need a DEEP Well outfit such as No. 42N5670, page 33) for end of pipe in well. The pump is then placed directly over the well, and the cylinder is lowered into the water. For an outfit of this kind order enough 14-inch pipe, No. 42N571114, to reach from pump at least 10 feet below low water level if water is deep, or within 1 foot of bottom if water is shallow. Also order enough pump rod (which we supply threaded and coupled at 64 cents a foot) to reach from pump to cylinder. If you place your tank any distance from pump, order pipe to reach from pump to tank (1-inch pipe from tank to house fixtures, etc.

Free Advice.

If in doubt on any point, write to us. Our experts will gladly give ou any information you wish without charge.



How to Figure Pipe for Kitchen Plumbing.

For SUPPLY pipe run %-inch pipe from ressure tank to sink, and to range boiler nd return for hot water. Heat water by rater front in kitchen range, by coils in urnace, or by Hercules Heater (see page 8). Run %-inch pipe from boiler to stove

or heater and return. Run ½-inch pipe to laundry tubs for hot and cold water. Use iron pipe and fittings, ulsted on page 23. For WASTE pipe from sink and laundry tubs use 1½-inch iron pipe. Make turns and branches with DRAINAGE FITTINGS

shown on page 23. Run vent from waste pipe to roof. Outside house use 4-inch soil pipe (see page 20) for drainage. It is best to run kitchen drainage into catch basin 15 feet from house, and from there into sewer or field ditch.

Furnish Running Water on Your Place



42N2600/2 Same as above, using 24-inch by vertical black steel tank. Total capacity, 190 galworking capacity, 130 gallons. Shipping weight, about ounds.

Water Supply Outfits for SHALLOW Wells or Cisterns

After you have selected the outfit be sure to read on this and the opposite page how to figure the pipe needed.

No. 42N2O43½ Outfit. One 24-inch by 6-foot vertical black steel pneumatic tank. Total capacity, 140 gallons; working capacity, 100 gallons; one special horizontal double acting force pump with 3-inch brass lined cylinder and hydropneumatic cylinder attached, one 1-inch gate valve, one 1-inch check valve, one water gauge complete, one pressure gauge, one 4/2-inch stop and waste cock, one 4/2-inch hose bibb, together with pipe and fittings cut and threaded, as shown in illustration. Shipping weight, about 470 pounds.

No. 42N2O44½ Same as above, using 30-inch by 6-foot vertical black teel pneumatic tank. Total capacity, 220 gallons; working capacity, 150 galns. Shipping weight, about 660 pounds. Price, complete \$104.30 Price, complete, with tank galvanized inside and out. 133.00

Let US Figure for You.

You.

If you would like US to figure, send us rough drawings of your basement, first and second and any other floors, with dimensions of rooms and height of cellings. Give height from basement floor to roof and distance from water supply to house. Give us the catalog numbers of the sink, closet, etc., you like, and show just where you want them placed. Send copy of your plumbing law, if there is one. Our experts will then give you an itemized estimate of the cost of fitting your place as you want it fitted.

To Pump by Hand or Windmill.

Ever Ready Water Supply Outfits for DEEP Wells

Any of these outfits furnished with vertical tank if desired. After you have picked out the size you want, be sure to read on this and the opposite page how to figure the pipe needed, No. 42N2627½ Outfit. One 30-inch by 6-foot horizontal black steel tank. Total capacity, 220 gallons; working capacity, 150 gallons; one special deep well double acting force pump, 2½x16-inch brass body water cylinder, one 3-inch hydropneumatic cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one special deep well double acting force pump, 2½x16-inch brass body water cylinder, one 3-inch hydropneumatic cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one salve valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one %1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch size body water cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one \$1.200 body water cylinder, one special deep well double acting force pump, 2½x16-inch hose size body water cylinder, one special deep well double acting force pump, 2½x16-inch hose size body water cylinder, one special deep well double acting force pump, 2½x16-inch hose size body wat

No. 42N2632½ Same as above, using 36-inch by 8-foot izontal black steel tank. Total capacity, 420 gallons; work-capacity, 280 gallons. Shipping weight, about 1,160 pounds. Price, complete. \$180.65

No. 42N2628½ Same as above, using 24-inch by 10-foot horizontal black steel tank. Total capacity, 235 gallons; working capacity, 160 gallons, Shipping weight, about 760 pounds. Price, complete. \$132.50

Price, complete, with tank galvanized inside and out. \$132.50 No. 42N2087½ Same as above, using 36-inch by 6-foot horizontal black steel tank, Total capacity, 315 gallons; working capacity, 210 gallons. Shipping weight, about 995 lbs. Price, complete. ... \$155.45

Price, complete, with tank galvanized inside and out 196.00

No. 42N2634½ Same as above, using 36-inch by 10-foot horizontal black steel tank. Total capacity, 525 gallons; working capacity, 350 gallons. Shipping weight, about 1,325 pounds.

With 2½x18-inch brass body cylinder with ball valves, \$2.25 extra.

The tanks are shipped from factory in CENTRAL ILLINOIS; pump and trimmings from our CHICAGO



How to Figure Pipe for Bathroom Plumbing.

For SUPPLY pipe, both hot and cold, to bathtub se ½-inch iron pipe. Use ¾-inch pipe to wash bowl and to closet. Iron pipe and fittings on page 23.

For CLOSET WASTE use 4-inch soil pipe and fittings nown on page 20. Run pipe up to roof for vent. onnect closet to upright stack with tee branch No. 2N1583¼ on page 20 and closet bend No. 42N1902¼ on age 20. Into the bend connect the 1½-inch iron pipe

you should use for waste from bathtub and wash bowl, Use DRAINAGE FITTINGS (elbows, tees, etc.) for the 1½-inch pipe. When there is no sewer or stream to take the closet waste, bulld a septic or "scum" tank. On request we will send full directions for building this tank.

Tools for Handling Pipe.

suggest pipe vise No. 42N5970¼; one No. 1 and one No. 2 pipe cutter No. 42N5996; stock and dies No. 42N6014; stock and dies No. 42N6014; and one or two wrenches No. 42N619. Material needed for calking soll pipe on pages 21 and 27. We suggest melting pot No. 42N1769, 3-inch ladle No. 42N1780; varning iron No. 42N1825; calking chisel No. 42N1831, furnace No. 42N1768¼.

EVER READY WATER SUPPLY OUTFITS



For SHALLOW Wells or Cisterns

To Pump by Hand

After you have selected an outfit be sure to read on page 2 how to figure the pipe needed.

OUTFIT No. 42N2605 1/6

One 30-inch by 6-foot horizontal black steel tank. Total capacity, 220 gallons; working capacity, 150 gallons; one special horizontal double acting force pump with 3-inch brass lined cylinder and hydropneumatic cylinder attached, one 1-inch gate valve, one 1-inch check valve, one water gauge complete, one pressure gauge, one 34-inch stop and waste cock, one 1/2-inch hose bibb, two tank supports

fitted to curvature of tank, together with pipe and fittings cut and threaded, as shown in illustration. Shipping weight, about 575 pounds. Price, complete....

OUTFIT No. 42N2606 3/2

Same as above, using 24-inch by 10-foot horizontal black steel tank. Total capacity, 235 gallons; working capacity, 160 gallons. Shipping weight, about 655 pounds.

Price, complete\$112.70 Price, complete, with tank galvanized inside and out. 147.60

OUTFIT No. 42N2608 3/2

Same as above, using 30-inch by 8-foot horizontal black steel tank. Total capacity, 295 gallons; working capacity, 200 gallons. Shipping weight, about 810 pounds.

Price, complete .. Price, complete, with tank galvanized inside and out. 160.75

Same as above, using 36-inch by 8-foot horizontal black steel tank. Total capacity, gallons; working capacity, 280 gallons. Shipping weight, about 1,140 pounds.

\$67.55

Price complete \$1.485

OUTFIT No. 42N26101/2

Same as above, using 30-inch by 10-foot horizontal black steel tank.

Total capacity, 365 gallons; working capacity, 250 gallons. Shipping weight, about 925 pounds.

Same as above, using 36-inch by 8-foot horizontal black steel tank.
Total capacity, 420 gallons; working capacity, 280 gallons. Shipping weight, about 1,060 pounds.
Price, complete
Price, complete, with tank galvanized inside and out.... 208.70

OUTFIT No. 42N2614 1/2
Same as above, using 36-inch by 10-foot horizontal black steel tank.
Total capacity, 525 gallons; working capacity, 350 gallons. Shipping weight, about 1,220 pounds.

For Cisterns or SHALLOW Wells To Pump by Hand or Windmill. Outfit No. 42N2617 ½

One 30-inch by 6-foot horizontal black steel tank. Total capacity, 220 gallons; working capacity, 150 gallons; one special double acting windmill force pump, one 2½x16-inch brass body water cylinder, one special intake air valve, one 1-inch gate valve, one 1-inch check valve, one water gauge complete, one pressure gauge, one ¾-inch stop and waste cock, one ½-inch hose bibb, two tank supports fitted to curvature of tank, together with pipe and fittings cut and fitted, as shown on inside of basement wall in the illustration. Shipping weight, about 655 pounds. ch are ed direct the fac-in Central EVER READY Any of these outfits furnished with Vertical Tank

Price, complete......\$111.30 Price, complete, with tank galva-nized inside and out.....\$142.25 OUTFIT No. 42N26181/2

Same as above, using 24-inch by 10-foot horizontal black steel tank. Total capacity, 235 gallons; working capacity, 160 gallons. Shipping wt., about 735 pounds.

Price, complete......\$118.95 Price, complete, with tank galva-nized inside and out.....\$153.70

OUTFIT No. 42N26201/2

Same as above, using 30-inch by 8-foot horizontal black steel tank. Total capacity, 295 gallons; working capacity, 200 gallons. Shipping wt., about 890 pounds.

Price, complete......\$132.15 Price, complete, with tank galva-nized inside and out.....\$167.00

OUTFIT No. 42 N20861/2

Same as above, using 36-inch by 6-foot horizontal black steel tank. Total capacity, 315 gallons; working capacity, 210 gallons. Shipping wt., about 970 pounds.

Price, complete......\$141.85
Price, complete, with tank galvanized inside and out.....\$182.45

Same as above, using 36-inch by 10-foot horizontal black steel tank. Total capacity, 525 gallons; working capacity, 350 gallons. Shipping weight, about 1,300 pounds. Price, complete \$188.70 Price, complete, with tank galvanized inside and out. 244.75

if desired. After you have selected your outfit, be sure to

read on page 2 how to figure the pipe needed.

EVER READY WATER SUPPLY OUTFITS

For Deep Wells

Horizontal Tank, With Automatic Windmill Regulator Pump to Be Operated by Hand or Windmill.

A Vertical Tank of the Same Size Will Be Substituted in Any Outfit if Desired. After You Have Picked Out the Size You Wish, Be Sure to Read How to Figure the Pipe, on Page 2.

These outfits are similar to those shown on page 4, with the exception that a windmill regulator pump is included which automatically starts and stops the windmill, starting the mill when the pressure drops to a certain point, and stopping it when the desired pressure is obtained. By shifting the weight on the lever the pressure can be increased or decreased as desired. The tanks are shipped from the factory in CENTRAL ILLINOIS, and the remainder of the outfits from our CHICAGO store.



OUTFIT No. 42N26371/2

One 30-inch by 6-foot horizontal black steel tank. Total capacity, 220 gallons; working capacity, 150 gallons; one special deep well windmill regulator force pump, one 2½x16-inch brass body water cylinder, one special 3-inch hydropneumatic cylinder, one water gauge complete, one pressure gauge, one 1-inch gate valve, one 1-inch check valve, one 3½-inch stop and waste cock, one ½-inch hose bibb, two tank supports fitted to curvature of tank, together with the pipe and fittings shown in the illustration. Shipping weight, about 740 pounds.

Price, complete.....\$132.30 Price, complete, with tank galvanized inside and out. 163.35

OUTFIT No. 42N26381/2

OUTFIT No. 42N2640 1/2

OUTFIT No. 42N2088 3/2

CYLINDER

HYDRO-PHEUMATIB

Same as above, using 36-inch by 6-foot horizontal black steel tank. Total capacity, 315 gallons; working capacity, 210 gallons. Shipping weight, about 1,055 pounds.

Price, complete.........\$163.00
Price, complete, with tank galvanized inside and out.................203.55

OUTFIT No. 42N2642 1/2

Same as above, using 36-inch by 8-foot horizontal black steel tank. Total capacity, 420 gallons; working capacity, 280 gallons. Shipping weight, about 1,220 pounds.

Price, complete.....\$188.80

Same as above, using 36-inch by 10-foot horizontal black steel tank. Total capacity, 525 gallons; working capacity, 350 gallons. Shipping weight, about 1,385 pounds.

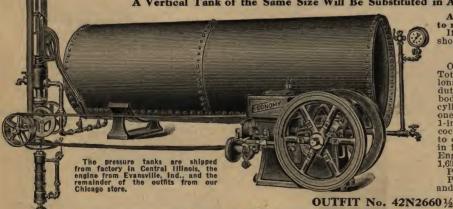
Price, complete.....\$209.80 Price, complete, with tank galvanized inside and out...... 266.00

OUTFIT No. 42N2644 1/2

For Deep Wells

Gasoline Engine, Horizontal Tank and Combination Working Head. Can Also Be Operated by Hand or Windmill.

A Vertical Tank of the Same Size Will Be Substituted in Any Outfit if Desired.



After you have picked out the size you need, be sure to read how to figure pipe on page 2.

If engine is not desired, deduct \$70.60 from the prices shown below.

OUTFIT No. 42N2658 1/2

Same as above, using 36-inch by 8-foot horizontal black steel tank. Total capacity, 420 gallons; working capacity, 280 gallons. Shipping weight, about 1,820 pounds. Price, complete, with tank galvanized inside and out.....

OUTFIT No. 42N2662 1/2

OUTFIT No. 42N2664 1/2

Same as above, using 36-inch by 12-foot horizontal black steel tank. Total capacity, 630 gallons; working capacity, 630 gallons; working capacity, 420 gallons. Shipping weight, about 2,145 pounds.

Price, complete.....\$305.80
Price, complete, with tank galvanized inside and out....\$366.50

If wanted with 3x20-inch brass body, ball valve cylinder, allow \$4.60 extra.

OUTFIT No. 42N2666 1/2

OUTFIT No. 42N2668 1/2

Same as above, using 42-inch by 14-foot horizontal black steel tank. Total capacity, 1,000 gallons; working capacity, 670 gallons. Shipping weight, about 3,110 pounds.

Price, complete.\$428.65

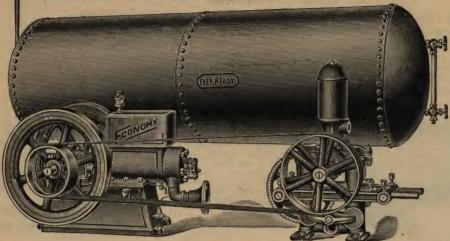
Price, complete, with tank galvanized inside and out.....\$547.35

For a complete description of our gasoline engines refer to our large General Catalog, or write for our Special Gasoline Engine Catalog.

EVER READY OUTFITS AND ACCESSORIES

Power Ever Ready Water Supply Outfits

Horizontal tanks, operated by gasoline engine. Used where supply is taken from a shallow well, cistern, lake, flowing spring, or any other source where the water is not more than 25 feet below the pump. The pressure tanks are shipped from the factory in Central Illinois, the gasoline engine from Evansville, Ind., and the remainder of the outfits from our Chicago Store.



OUTFIT No. 42N26481/2

Same as above, using 36-inch by 8-foot horizontal black steel tank. Total capacity, 420 gallons; working capacity, 280 gallons. Shipping weight, about 1,825 pounds.

Price, complete with tank galvanized inside and out...... 330.40

OUTFIT No. 42N26501/2

Same as above, using 36-inch by 12-foot horizontal black steel tank. Total capacity, 630 gallons; working capacity, 420 gallons. Shipping weight, about 2,150 pounds.

Price, complete with tank galvanized inside and out...... 389.65

If engine is not desired deduct \$70.60 from the prices shown below. After selecting outfit, read how to figure pipe on page 2.

OUTFIT No. 42N26461/2

One 30-inch by 10-foot horizontal black One 30-inch by 10-foot horizontal black steel tank. Total capacity, 365 gallons; working capacity, 250 gallons; one Hercules heavy duty double acting force pump, back geared 5 to 1; capacity per hour, 720 gallons; one pressure gauge, one water gauge complete, one 1¼-inch check valve, one 1¼-inch gate valve, one 1-inch water relief valve; one ¾-inch stop and waste cock, one ½-inch hose bibb, two iron tank supports fitted to curvature of tank; all pipe, fittings and belt shown in the illustration; one 2½ horse-power Economy Gasoline Engine. Shipping weight, about 1,695 pounds. about 1,695 pounds.

Price, complete.....\$273.25 Price, complete, with tank galvanized inside

OUTFIT No. 42N26521/2

Same as above, using 42-inch by 10-foot horizontal black steel tank. Total capacity, 720 gallons; working capacity, 480 gallons. Shipping weight, about 2,585 pounds.

Price, complete.....\$385.10 Price, complete with tank galvanized inside and out...... 474.60

OUTFIT No. 42N26541/2

Same as above, using 42-inch by 12-foot horizontal black steel tank. Total capacity, 865 gallons; working capacity, 580 gallons. Shipping weight, about 2,850 pounds.

Price, complete.. Price, complete with tank galvanized inside and out..... 521,95

OUTFIT No. 42N26561/2

Same as above, using 42-inch by 14-foot horizontal black steel tank. Total capacity, 1,000 gallons; working capacity, 670 gallons. Shipping weight, about 3,115 pounds. Price, complete..... For a complete description of our gasoline engines refer to our large General Catalog, or write for our Special Gasoline Engine Catalog,

Read What These Folks Say

Ever Ready Outfit Protection Against Fire.

Ever Ready Outfit Protection Against Fire.

Scars, Roebuck and Co., Chicago, Ill.

Gentlemen:—Referring to the Water Supply Outfit which you furnished me, I wish to advise that it is giving entire satisfaction. I use the pump jack and gasoline engine, which I bought from you last May, to operate the pump which came with the Ever Ready, Outfit. I usually pump enough water into the tank to give me about 40 to 50 pounds pressure. This is sufficient to take care of all my needs and gives me good protection in case of fire, as with this pressure I can throw a stream of water over my house when standing on the ground and using a hose. In the Summer I can sprinkle my lawn to much better advantage than heretofore. I can recommend it most highly, as the water does not become contaminated, as it would do in an open tank. I have the whole outfit—engine, pump, tank and all—in the cellar in the heating furnace room, and thereby have cool water in the Summer and not too cold in the Winter.

Yours truly,

Yours truly, FRANK H. NULLMEYER.

Says the Blue Prints and Instructions Fur-nished With Our Water Supply Out-fits Make Installing Very Simple,

fits Make Installing Very Simple,
Georgiaville, R. I.
Sears, Roebuck and Co., Chicago, Ill.
Gentlemen:—Some time ago we installed one of your Ever Ready Water Supply Systems and are pleased to advise that we had very little trouble with the putting in of this outfit, as the blue prints and instructions that you sent with same made it a very simple matter indeed. There was no additional expense in installing this system outside the work of putting it in. This outfit has proven to be satisfactory in every respect, and should I know of any-body in this vicinity who desires to install a water system I will certainly recommend the Ever Ready.

Yours truly,
ELMER W. LOOMIS.

Ten to Fifteen Minutes' Pumping Once a Week is All the Attention Necessary to Keep Our Water Supply Outfit in Operation.

Taylor, S. Dak.
Sears, Roebuck and Co., Chicago, Ill.
Gentlemen:—The Water Supply Outfit purchased from you last year is giving the best of satisfaction. I did the work of installing the outfit myself and find that any man with a few tools can easily erect one of your Ever Ready Systems. I find that the material in this outfit is of a very good quality, and at the price you ask for this system and the convenience of having hot and cold water always on tap, it seems strange that the majority of farm houses are not supplied with the Ever Ready System. Ten to fifteen minutes' pumping once a week is all the attention required to keep the outfit in operation.

Yours truly,

Yours truly WM. HARRISON.

Has No Knowledge of Plumbing, but Had No Trouble in Installing Our Ever Ready Water Supply Outfit.

Ready Water Supply Outfit.

Box 43, Tracy, Conn.

Sears, Roebuck and Co., Chicago, Ill.

Dear Sirs:—I have your letter of recent date asking me to give my frank opinion as to just what I think of the Water Supply Outfit that you shipped to me about is months ago. I wish to say that it is giving perfect satisfaction and, although I had no knowledge whatever of plumbing. It into thave any trouble with the installation of this outfit, or the range boiler purchised of you, as I found that the instructions and bue prints that you sent me fully correct the putting together of this material. I do not see why this system should not give me. as good results fifty years from now as it does today, as it is certainly made of good material throughout.

Yours truly, JAMES RUSHWORTH.

Operated Our Water Supply Outfit With Ram Very Successfully.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The Water Supply Outfit purchased from you has now been in continuous operation about one year. It has given me splendid satisfaction and no trouble whatever. My system is perhaps a little unusual, as both the water and air supply are furnished by a ram. The ram automatically and without attention furnishes all the water needed, and I find that there is no difficulty in maintaining a pressure of from 30 to 60 pounds. Once as a test I allowed the pressure to run up to 70 pounds. The relief valve supplied by you allows the water to escape from the tank when the pressure reaches 60 pounds, thus avoiding an excessive pressure on the water pipes and obviating any danger of leaking or bursting pipes. I believe that the successful operation of a tank with a suitable ram should be emphasized and recommended wherever conditions are favorable for the installation of such an outfit. I was advised by others in the business that a ram would not successfully operate a pressure tank under my conditions. I have found, however, that it has been entirely satisfactory in every particular, has given no trouble whetever and is equal to any city waterworks. There is no comparison between the water as supplied by a pressure tank and the water as supplied from an elevated or overhead tank. The air in the tank arates the water and thereby makes it always fresh, cool and sparkling. Our system has given me excellent service during the past year, and I see no reason why it should not continue to do so for many years to come.

Yours truly.

Yours truly, E. O. WHEALLER.

Saved \$65.00 to \$75.00 by Buying Our Water Supply Outfit.

Sears, Roebuck and Co., Chicago, Ill.
Gentlemen:—With regard to the Pressure

Outfit I purchased from you, will say that it is the most complete outfit I ever saw. The pressure tank and force pump and in fact the entire system and the bathroom outfit that you shipped to me are all that the most critical person could wish. I purchased all tools necessary for installing the Water Supply System and boller outfit from you, and found after it was installed that the cost of same, including the tools, was from \$65.00 to \$75.00 less than I could possibly have had it put in for in this vicinity.

Nours truly.

D. L. QUICK.

With an Ever Ready Outfit Has No Trouble in Obtaining Sufficient Water for Bathroom With Ten Pounds Pressure on Tank.

Pressure on Tank.

Frankfort, Ky.

Sears, Roebuck, and Co., Chicago, Ill.
Gentlemen:—The Water Supply Outfit
which I purchased of you last Spring has
given perfect satisfaction. I placed the tank
in the basement and, although the bathroom is located on the second floor, have
no trouble whatever in obtaining a sufficient
supply of water in the bathroom when there
is but 10 pounds pressure on the tank.
Yours very truly,
H. M. LEONARD.

Made of First Class Material. Sees No Reason Why It Should Not Last a Lifetime.

Sears, Roebuck and Co., Chicago, Ill.
Gentlemen:—The Water Supply Outfit I
bought from you is very satisfactory in
every detail. I saved fully \$25.00 by purchasing this outfit from you, and I find
that although I have obtained the system
at a great deal lower price than other firms
quoted me, it is made up of first class material in every respect, and I see no reason
why it should not last a lifetime.

Yours truly,
M. GRAF

Ever Ready Electric Water Supply System



Automatic Electric Water Supply Systems.

Automatic Electric Water Supply Systems.

A UTOMATICALLY supply RUNNING WATER to the bathroom, kitchen sink, laundry, stables, garden and any other part of your home or farm. Can be installed any place where electric power is available and the water supply is not more than 22 feet below the pump. The Ever Ready Automatic Electric Water Supply System means running water on tap at all times at a low cost, practically without attention. The outfit consists of pump, motor and automatic switch all combined, mounted on a cast fron base; an airtight pressure tank and the necessary valves, gauges and fittings. To install, it is only necessary to connect the motor to your electric wiring and the outlet of the tank to the supply pipe of the different faucets from which water is to be drawn. The automatic switch starts the pump when the pressure has been raised to 35 pounds. The pump is self oiling and outfit will operate for weeks at a time without any attention.

The tank is made of steel and is capable of withstanding from two to three times the pressure under which it is placed. It is listed in both black and galvanized.

The pump is of a new type, embodying the latest improvements of the most reliable electric house pumps now in use and, in addition, has several exclusive features which add much to the efficiency and life of the system. It has a capacity of 125 gallons per hour. It is self priming and has a splash system of oiling, which makes it operate with little or no noise.

The motor is built especially to meet the requirements of this system. It is made by one of the largest electric motor manufacturers and is of the latest approved design.

The automatic switch starts and stops the motor, keeping the pressure can be maintained. The valves and gauges consist of a brass relief valve, a stop or shut-off valve, a pressure gauge and a water gauge. The relief valve is a safeguard, preventing an excess pressure upon the system should the regulating switch ever valve to work properly. The pressure gauge shows the pre

tank, total capacity, 220 gallons; working capacity, 150 gallons. Simplify pounds. Price. \$153.90 pounds. Price. \$153.90 No. 42N2673 % Outfit, same as above, except that tank is galvanized inside and out. \$182.55 rice \$182.55 o. 42N2674/3 Pump, switch and motor only, as illustrated. Shipping weight action ounds. Price. \$62.00

Read This Before Ordering.

When ordering any of the above outlits be sure to state whether the electric current is direct or alternating; also give the voltage and, if alternating, whether one, two or three-phase and the cycles. This information can be obtained from the company furnishing the electricity.

Ever Ready Pressure Tanks

We recommend that our customers order Ever Ready Outfits complete, as our pumps, valves, fittings, etc., are Outfits complete, as our pumps, valves, fittings, etc., are made especially for Water Supply Outfits, and complete outfits as specified and furnished by us will give perfect satisfaction; whereas, trouble will sometimes occur with outfits where tanks are connected with pumps, valves and fittings that are not made especially for this work. For the benefit of our customers, however, who desire tanks only, we give a list of the different sizes always carried in stock at our factory. All prices are for the tanks delivered on the care at the factory in CENTRAL LILINOIS on the cars at the factory in CENTRAL ILLINOIS.

These tanks are made of flange steel, having a tensile strength of 60,000 pounds; all longitudinal seams are double riveted and the tanks are tested to an air pressure of 125 pounds before leaving our factory. Ever Ready tanks are guaranteed and we will replace any tank that is found defective or that will not hold air.

BE SURE TO STATE WHETHER YOU WANT TANK TO SET HORIZONTALLY OR VERTICALLY.

No.	42N20891/	2 Ever	Ready	Steel	Tanks.

Diameter,	Length,	Shpg. Wt.,	Capacity.	THICKN	ESS, IN.	PR	ICE
Inches	Feet	Abt., Lbs.	Gallons	Shell	Head	Black	Galvanized
24 24 24 30 30 30 36 36 36 36 42 42 42 42 43 43	56 10 68 10 68 10 12 8 10 12 14 14 14 16 20	350 400 600 530 000 750 700 850 1,000 1,150 1,400 1,850 2,100 2,500 2,800 3,400	120 140 235 220 295 365 315 420 525 630 575 720 865 1,500 1,800 1,880 2,260	3-16 3-16 3-16 3-16 3-16 3-16 3-16 3-16	1-4 1-4 1-4 5-16 5-16 5-16 5-16 5-16 5-16 5-16 5-16	\$ 61.35.55.00 61.35.00 61.	\$ 76.50 84.80 123.40 123.49.40 150.655 2143.855 2143.80 277.750 3777.05 494.75 664.75 670.80

Prices on larger size tanks quoted on application.

Below we show the names of a few who are using our Ever Ready Water Supply Outfits. Why not write to them and ask them what they think of these outfits? Enclose stamps for a reply.

MILTON R. FISHER, R. No. 2, Ro!fe, Iowa A. L. HECKMAN. 608 No. La Salle St.. Indianapolis, Ind. C. NICK MUESSIG, Box 205, Chester, W. Va. WILBERT J. STAHL, R. F. D. No. 5, Fostoria, Ohio C. B. ROCKHILL, Blue Moon Poultry Farm, Ed LOUIS RICHARD, 357 McKellar St., Chillicothe, Ohio. FRED. W. EICHHORST, R. No. 6, Champaign, Ill. C. LAYTON,

J. L. HEISEY, East High St., Elizabethtown, Penn. JOHN D. HUDSON, 2016 Manito Place, Spokane, Wash, J. W. RICKERS, DR E T LARK W. E. TRIMBUR, 421 Carbon St., Butler, Penn. P. C. RICHARDS, c/o Warrenton Telephone Exchange, Warrenton, R. No. 4, Mercer, Penn. CHAS. H. BIDWELL, 30 Lawrence Ave. O. R. WESTOVER,
R. No. 49,
Schenectady, N. Y.

FRED. L. MILLER, R. No. JOHN L. SNYDER, WM. T. TEMPLIN, R. No. 6, Box No. 98, Koke ADAM J. REINHART, R. No. 2, Hartline, Wash ADOLPH REIM B. KROEBEL. West Athens, N. Y. DR. NEAL KITCHENS

FREDERICK C. A. MEIER, 1345 Barth CHAS. A. QUACKENBUSH,
Park Ridge, N. J. JOHN E, RATHBUN, 1520 56th St., Brooklyn, N. Y. IRA W. MOE. MARK BOWEN, Box No. 323, 20 Delilah Road, Pleasantville, N. J. MRS. GEO. J. MICHAEL, R. No. 3, Columbus, Ind. C. J. LANE, R. No. 1, Box No. Brus C. BRUNDRETT, MRS. JOSEPH SNITER, Box 233, De Witt, Neb.

Our Complete Instruction Book Will Show You How to Install Modern Plumbing





BEFORE

A COMPLETE Instruction Book, illustrated with many actual photographs of the installation of various plumbing fixtures and the laying of the pipe, is yours for the asking if you order your plumbing from us.

This book is based on the installation of modern plumbing on a farm, some views of which are given in the illustrations on this page. The two illustrations above show the methods of drawing water on this place BEFORE Modern Plumbing was installed. The two lower illustrations are from photographs which were taken AFTER Modern Plumbing had been put in according to our instructions.

Easy to Put In Modern Plumbing

Even if you have never before done any sort of plumbing, it is easy to install with the help of our full and complete directions. Thousands of our customers have done it. The modern method of using *iron* pipe reduces plumbing to the simple operations of cutting and threading pipe and screwing it together. There is no soldering or wiping of joints. Our Instruction Book makes it possible for you to have modern plumbing conveniences even in localities where skilled labor is not easily obtained, for it practically gives you an expert plumber at your elbow throughout the job to show you how everything should be done.

What Our Instruction Book Contains

Among other things the book describes in full how to install a pressure water tank and connect it with your water supply and your house plumbing. It tells how to set up a sink, a laundry tub and a range boiler in the kitchen or laundry, and how to install the pipe for them; how to place a water closet, a bathtub and a lavatory (wash bowl) in the bathroom, or any other room. It describes how to connect the range boiler with stove, furnace or special heater for hot water. It shows how to revent the various fixtures in the most approved modern style. It gives full directions for calking soil pipe.

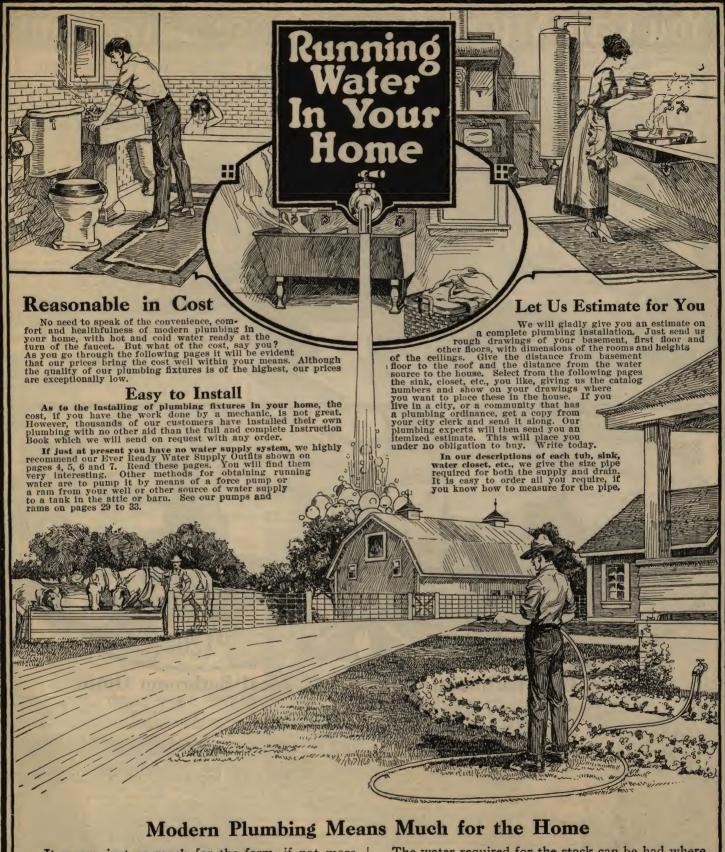
Most important of all, it gives complete directions for the disposal of the waste water outside the house. When there is no sewer or running stream to take care of the waste, the disposal, especially of the water closet waste, requires careful treatment. Our instruction Book contains simple instructions for building a cesspool and septic tank and for laying out and constructing drainage ditches and filter beds, the latest approved methods of finally disposing of sewage.

This Instruction Book is absolutely free to our plumbing customers.

AFTER







It means just as much for the farm, if not more. It will save the farmer hours of labor. It will place within his reach, in his barns and outbuildings, running water by turning the faucet.

No need to worry about the garden, for with a few feet of hose attached to the faucet all the water that it needs will be ready at any time of the day or night. The water required for the stock can be had where and when it is needed if running water is available. The thousand and one uses for running water should themselves be reasons enough for getting it installed immediately.

Running water means comfort in the home and on the farm.

You Can Afford One of These Bathrooms



Our Most Popular Outfit. Perfection Bathroom Outfit

BATHTUB is 5 feet long, 30 inches wide and 16½ inches deep, sufficient to prevent water from splashing over sides, Made of cast iron, coated inside with white porcelain enamel, and has 3-inch roll or turnover rim. Standard Fuller pattern No. 4½ bath cock, 1½-inch connected waste and overflow and two ½-inch offset supply pipes, all of brass, nickel plated and polished.

LAVATORY is 18 inches from front to back, 21 inches wide and has 8-inch high back and roll or turnover rim 4 inches deep. Soap cup cast in top directly above overflow. 1½-inch trap with outlet to wall, two compression cocks of faucts with china tops, one marked "hot" the other "cold," and two ¾-inch supply pipes from cocks to wall. All trimmings of the latest design, made of brass, nicely nickel plated.

mings of the latest design, made of brass, nicely nickel plated.

CLOSET has siphon washdown pattern bowl of vitreous earthenware, polished grain sawed oak tank and seat. Tank lined with copper, holds 61/2 gallons. China handle flush lever, %-inch supply pipe to floor, hinges for seat and screws and washers for fastening bowl to floor. All trimmings are nicely nickel plated.

Bathtub and lavatory shipped from LAYTON PARK, WIS. Shipping weight, about 95 lbs.

No. 42N9214/y Perfection Bathroom Outfit (bathtub, lavatory and closet), with supply and waste pipes of lavatory to wall, as illustrated. Frice. ... \$69.70.

No. 42N2214/y Perfection Bathroom Outfit (bathtub, lavatory and closet), with supply and waste pipes of lavatory to wall, as illustrated. Frice. ... \$69.70.

Wanted with waste and supply pipes threaded for connecting to iron pipe, allow \$1.50 extra.

Prices of outfits above do not include bathroom trimmings.

BATHROOM TRIMMINGS.

No. 42N 1155 Tumbler Holder and Tumbler, Price. 50e
No. 42N 1228 Toilet Paper Holder, Price. 25e
No. 42N 1189 Towel Bar, 18-inch, Price. 60e
No. 42N 1222 Bath Seat, Price. 60e
For full descriptions, as well as a large assortment of other
Bathroom Trimmings, see page 18.



Gem Bathroom Outfit

pounds.
No. 42N92201/3 Gem Bathroom Outfit (bathtub, lavatory and closet), with supply No. 42N92201/5 Gem Bathroom Outfit (bathtub, lavatory and closet), with waste and supply pipes of lavatory to wall, as illustrated. Price....\$88.25
No. 42N22201/5 Gem Bathroom Outfit (bathtub, lavatory and closet), with waste and supply pipes of lavatory to the floor. Price...\$89.05
If wanted with waste and supply pipes threaded for connecting to fron pipe, allow \$1.50 extra oxtra. is of outfits above do not include bathroom trimmings.

BATHROOM TRIMMINGS.

Ideal Bathroom Outfit

BATHTUB is 5 feet jone, 30 inches in diameter and about 17 inches deep inside. 2st iron, with a 3-inch roll rim and base, all cast in one piece. Entire tub, excepting under side of the base, glazed with white porcelain enamel. Standard Fuller pattern No. 4½ bath cock, with china handles, marked "hot" and "cold"; 1½-inch Model waste und overflow, with china top marked "waste," and two ½-inch supply pipes, all brass, lickel plated.

LAVATORY is of the square pattern, with top measuring 20 inches from front to back and 24 inches wide. Square pedestal. Inside, top and apron of lavatory and pedestal are glazed with white porcelain enamel. 1%-inch trap with outlet to wall; Model waste; two Fuller pattern cocks with china handles, marked "hot" and "cold," and two %-inch bottle air chamber supply pipes to wall. All trimmings nickel plated.

BATHROOM TRIMMINGS.



Extra Finish Bathtubs.

Extra Finish Bathtubs.

Extra zinc finish on outside. Width over all, 30 inches, with 3-inch roll rim. Height on legs, 22 in. Depth inside, 16½ in. Read description in center of page.

No. 42N191½ Bathtub, complete with trimmings, as illustrated, for lead pipe. If wanted for iron pipe, add 75 cents to princed for iron pipe, add 75 cents to princed to price the price to the price

Width, 30 Inches, 3-Inch roll rim. Height, 22 inches.

No. 42N181% Bathtub, complete with trimmings, as illustrated, for lead pipe, If wanted for Iron pipe, add 75 cents to prices. Length, feet. 4½ 5 Shipping weight, about, pounds 250 300 Frice ... \$32,00 \$32.10 Length, feet 5½ Shipping weight, about, pounds 350 400 Length, feet \$54 6 Common overflow and waste plug for above bathtubs, for 1½-inch Price ... \$34.75 \$41.00 Length, feet 1½-inch iron pipe, \$1.95.

There Is Nothing So Invigorating as a Refreshing Bath

It is a pleasure to bathe in a snowy white tub or to take a quick plunge in it upon arising, with the water tempered just enough to make your body tingle and glow with a new vigor, fresh for the day's work. Why not take advantage of these comforts when they cost so little?

Full Description of Bathtubs on this Page.

All the bathtubs on this page are shipped from LAYTON PARK, WIS., except Nos. 42N1601/2 to 42N1631/2, steel. They are made of cast iron, porcelain enameled, except the painted steel tubs. The porcelain is guaranteed not to crack, peel or chip.

The Inside and Roil Rim of all cast iron tubs are porcelain enameled. The outside, except in the case of the extra finish tubs (Nos. 42N191½, 42N186 42N180 and 42N197½); is given a coat of filler. It may be enameled or painted to match the bathroom walls.

Extra Finish Bathtubs Nos. 42N1911/6 and 42N1861/6 are finished on the outside by a special process. The surface of the tub is ground smooth and given a number of coats of special zinc enamel. Each coat is rubbed down before the next is applied. The result is a smooth white finish closely

resembling porcelain enamel. Bathtubs Nos. 42N180 and 42N1971/3 are porcelain enameled inside and out.

Trimmings. When furnished they consist of combination Fuller pattern bath cock, two offset supply pipes, and for the waste either combination waste and overflow with chain and rubber plug, or a Model waste when shown. All trimmings highly nickel plated. They are regularly furnished to connect to lead pipe. If wanted for iron pipe, add 75 cents to prices.

Size of Pipe Connections. All our tubs are fitted for ½-inch supply pipe and 1½-inch waste pipe. For lead pipe see page 1604. For iron pipe and fittings see page 1606.

We do not list seconds, nor do we quote prices on "B" grade fixtures.

An All White Built-In Bathtub.

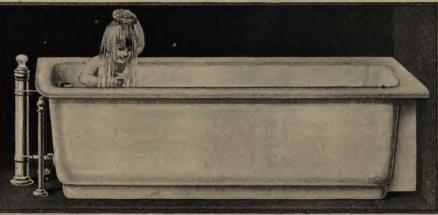
An All white Built-In Bathtub.

The tub is cast iron with three coats of porcelain enamel inside and painted outside and furnished with a nickel plated brass model waste and overflow with a china lifting knob. The supplies are nickel plated brass post supplies, and a nickel plated combination bath cock with indexed China handles. For the reason that this tub sets up against the back and end walls and fits tight to the floor, it is strictly sanitary and easily kept clean, as it will not allow the accumulation of dirt or any other foreign substance at the end or beneath the tub. It is a very attractive and durable fixture, greatly adds to beautifying the bathroom, and is also designed for different conditions as it can be fitted either right or left hand. State which is wanted.

No. 4.2N 1838 Bathfuh, complete with trimmings.

No. 42N188 Bathtub, complete with trimmings, as illustrated, for lead pipe. The above tub can be furnished with fittings threaded for iron pipe for 75 cents extra.

cents extra.
Length of tub, feet... 4½ 5 516 559
Weight, pounds...... 450 \$10 \$47.90
Price \$42.30 \$45.10 \$47.90
No. 42N180 Same as above except tub is enameled inside and outside.
Length of tub, feet... 4½
Price \$57.30 \$60.10 \$62.90





Enamel Painted Steel Bathtubs.

Made of sheet steel, painted outside, with white enamel on inside. Has 3-inch wood rim, varnished. Nickel plated waste and overflow, and rubber pluz. Thus fitted for No. 4½ Fuller bath cock, but these not furnished at prices quoted. Shipped from DETROIT, MICH. Wt., about 99 lbs.

No. 42N | 60½ Size, 5 feet. Price. 9.40
No. 42N | 61½ Size, 5 feet. Price. 9.40
No. 42N | 63½ Size, 5 feet. Price. 9.80
No. 42N | 63½ Size, 5 feet. Price. 10.20
For Bath Cocks see No. 42N | 302 and No. 42N | 307 on page | 602.

Tallpiece on tubs threaded for 1-in, iron pine connection. ce on tubs threaded for 1-in. iron pipe connection.



Porcelain Enameled Bathtub With Base.

Tub and base east all in one piece and porcelain enameled inside and out. Model waste. Width over all, 30 inches; 3-inch roll rim. Height. 22 inches. Depth inside, 16½ inches, Read full description in center of this page. No. 42N 197% Bathtub, complete with trimmings, as illustrated, for lead pipe. If wanted for iron pipe, add 75 cents to prices.

Prices on SITZ Bathtubs will be furnished on application



Bathtub With Model Waste.

Twenty-two inches high on legs, with 3-inch roll rim; width over all, 30 inches; depth inside, 16½ inches. Model waste. Read full description in center of page.

No. 42N183½ Bathtub, complete with trimmings, as illustrated, for lead pipe. If wanted for Iron pipe, add 75 cents to prices.

The control of the co



Half Circle Lavatory With Apron.

18x21 in., with 10x14-in. bowl. Height, back, 8 in. Shipping weight, about 90 pounds. Read full description at right.

No. 42N39051½ Complete with trimmings, as illustrated, waste and supply pipes to wall, for lead pipe. Fitted for iron pipe, 75c extra. Enameled inside, painted outside. \$14.95
Enameled inside and outside. \$16.95
No. 42N49051½ Complete with trimmings, waste and supply pipes to floor, for lead pipe. Fitted for iron pipe, 75c extra. Enameled inside, painted outside. \$15.85
Enameled inside, painted outside. \$17.70
No. 42N9050½ Lavatory only, with waste plug with coupling, chain and chain stay. Threaded for iron pipe, 75c extra. Enameled inside, painted outside. \$9.00
Enameled inside, painted outside. \$9.00
Enameled inside and outside... 10.90

No. 42N49061½ Lavatory, with trimmings, waste and supplies to floor, for lead pipe. Fitted for iron pipe, 75cextra. Enameled inside, painted outside. Price. \$20.70 Enameled inside and outside. 23.00

No. 42N90601/3 Lavatory only, with waste plug with coupling, chain and chain stay. Fitted for iron pipe, 75c extra.

FULL DESCRIPTION OF LAVATORIES.

All shipped from factory in LAYTON PARK, WIS.

All lavatories on this page and the next are made of cast iron cast in one piece (except pedestals, which are separate pieces.) They are white porcelain enameled. We guarantee first quality material and workmanship throughout. All lavatories, except those fitted with Model waste, are made with depression for holding soap directly above overflow. Overflow channel and strainer are cast as part of the lavatory itself, making it sanitary and easy to keep clean. The lavatories hang on concealed wall



SANITARY DRINKING FOUNTAINS

Porcelain Enameled Sanitary Drinking Fountain.

No. 42N9208½

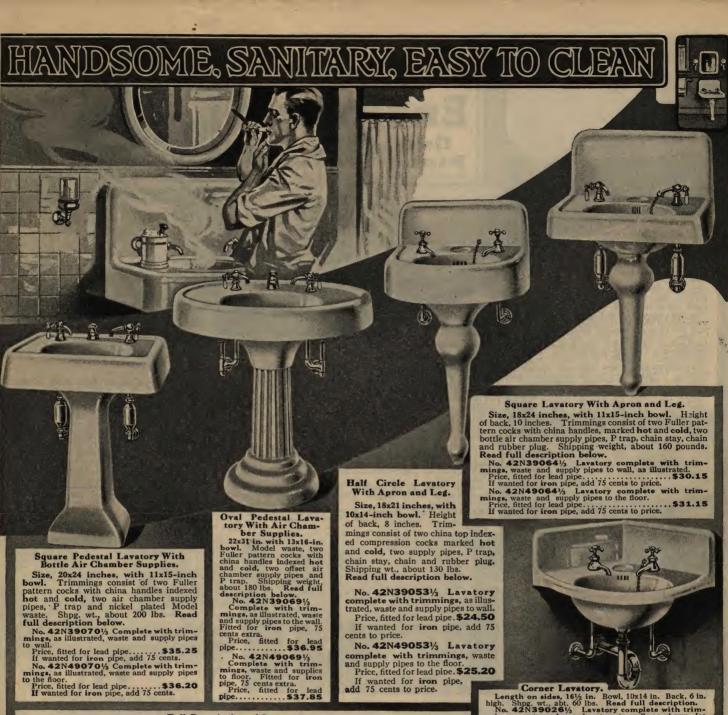
Bowl and pedestal are in one piece, en a me le d with white porcelain. Bowl is 12 inches wide. Has nickel plated brass bubbling cup with filter, concealed galvanized iron supply and waste pipes and self closing valve with china handle. Fitted for ½-inch drain pipes. Shipping weight, about 140 pounds.

30 inches high...\$20.90



You owe it to your community to insist on sanitary drinking fountains in your schools, factories and shops—wherever a large number of persons must be supplied with drinking water. Everybody is entitled to fresh, pure, clean water—not water taken from a glass or cup from which many others have been drinking.

Sanitary Wall
Drinking Fountain.
No. 42N9209½
With supply and
waste pipes to floor,
as shown. Same high grade
construction as our No.
42N9208½ Fountain. Fastens to wall and is fitted
with hand self closing valveinstead of floor valve.
Prices are for fountain
complete, with valve as
illustrated. Diameter of
bowl, 9 inches; depth inside,
3 inches; height over all, 30
inches. Fitted for 1½-inch
drain and ½-inch supply.
Shpg. wt., about 30 lbs.
Bowl enameled inside,
painted outside \$10.90
Bowl enameled inside
and outside.. \$11.85



Full Description of Lavatories.

Also read under "Full Description" on opposite page.

The Model waste is a device for stopping the waste opening without rubber stopper. It also prevents bowl from filling above a certain point. Made of brass, nickel plated, with china top knob marked "Waste." A half turn of knob raises or lowers plunger, opening or closing waste outlet.

Lavatories Only, as listed, consist of lavatory, with nickel plated brass waste plug with coupling, chain and chain stay, or with Model waste when shown. They do chain stay, or with Model waste when shown. They do chain stay, or with Model waste when shown. They do chain stay, or with Model waste when shown are considered to remain the constant of the consta

If wanted for iron pipe, add 75 cents to price.





Corner Lavatory With Apron,
Model Waste and Air Chamber Supply Pipes.
Length on sides, 20 in. Bowl,
11x15 in. Back, 8 in. high. Shpg. wt.,
abt. 90 lbs. Full description above.
No. 42N39046½, Lavatory
complete with trimmings, waste
and supply pipes to wall, as shown, for
lead pipe. Fitted for iron pipe, 75
cents extra.
Enameled inside and 26,45
the complete with trimmings, waste
and supply pipes to flow for lead pipe.
Fitted for iron pipe, 75 cents extra.
Enameled inside and cutside.
Enameled inside, painted outside, 27,25
Enameled inside, painted outside, 27,25
Enameled inside and cutside. 27,25
Enameled inside, painted outside, 27,25
Enameled inside, painted outside, 524.95
Enameled inside, painted outside, 524.95
Enameled inside, painted outside, 515.55
Enameled inside, painted outside, \$15.55
Enameled inside, painted outside, \$15.55
Enameled inside, painted outside, \$15.55



Porcelain Enameled

Price \$19.45 21.50 25.95

No. 42 N9090/s Sink only with strainer and allpiece. If wanted fitted for iron pipe, add 75 cents lize, Shrg. Wt., In. Abt., Lbs. Price R824 95 10.50 20x30 110 \$13.75



Corner Sink.

Corner Sink.

Furnished either with left hand corner and right hand drain board, or with right hand corner and left hand drain board. State whether wanted with left end piece and right drain board, or the reverse.

No. 42N39113½ Sink complete with trimmings, waste pipe to the wall, as shown, for lead pipe. If wanted for iron pipe, add 75 cents to prices. Entire length. 44 in. 48 in. 52 in. Size of sink. 220.65 in. 20226 in. 20228 in. Size of sink. Shipping weights, same as above. Entire length 44 in. 48 in. 52 in. Size of sink. 2026 in. 20226 in. 20228 in. Frice 20226 in. 20226 in. 20228 in. Frice 330.15 Size of sink. 2026 in. 20226 in. 20228 in. Frice 330.15 Size of sink. 2028 in. 20228 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. Price 330.15 Size of sink. 20226 in. 20228 in. Price 330.15 Size of sink. 20226 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. Price 320.15 Size of sink. 20226 in. 20228 in. 20228 in.

Have You a Modern, Sanitary One-Piece Enameled Sink in Your Kitchen?

Do you realize how many steps it will save? What a convenience it will be? How easy it is to keep clean? All the sinks shown on this and the opposite page are made of cast iron, in one piece, and are coated with white porcelain enamel, a glass-like substance. They have no cracks, sharp corners or crevices into which grease or dirt can lodge.

All sinks listed on this and the next page, except outfits Nos. 42N9076/4, 42N9075/4 and 42N9078/4, are shipped from LAYTON PARK, WIS., and have 12-inch high back and 2/4-inch roll rim. Inside of sink, roll rim, back, end plece and drain board carefully enameled with white porcelain, while under side of sink is painted. First quality in every respect. Porcelain enamel guaranteed not to chip, peel, crack or flake.

Each sink fitted with concealed cast iron brackets to hang to wall. In addition, sinks No. 42N39103/4, No. 42N39123/4, and No. 42N39129/4 are furnished with two adjustable bronzed iron legs, as they are too heavy to be supported by wall hangers only. If wanted with porcelain enameled legs, allow \$3.00 extra. Any sink furnished with wall brackets only can be fitted with two adjustable bronzed iron legs for \$1.25 extra, or with two adjustable procelain enameled tron legs for \$4.50 extra.

TRIMMINGS—All sinks listed with trimmings are fitted with two %-inch Fuller pattern bibbs or faucets and a 1/4-inch adjustable silp joint trap with a new type strainer. All trimmings are made of nickel plated brass, nicely finished.

SINKS ONLY-Sinks only as listed include a new type nickel plated brass strainer.

PIPE CONNECTIONS—All sinks on this and the next page fitted for %-inch supply and 1%-inch drain lead pipe, be furnished threaded for wrought pipe for 75 cents extra.

We do not list seconds nor can we quote prices on "B" grade fixtures.

Double

Drain Board Roll Rim Sink With Legs.

No. 42N39127½ Complete with trimmings, waste pipe to the wall, as shown, for lead pipe. If wanted fitted for iron pipe, add 75 cents to price.

Length over all, 62 inches. Size sink, 20x26 inches. Drain boards, 20x18 inches. Shipping weight, about 275 pounds. Price. ... 336.85

No. 42N49127½ Complete with trimmings, waste pipe to the floor, for lead pipe. If wanted fitted for iron pipe, add 75 cents to price. Shipping weight, same as above.

price.
Length over all, 62 inches. Size sink, 20x26 inches.
Drain boards, 20x18 inches. Shipping weight, about 265
pounds. Price.......\$32.20
No. 42N1196 Rubber Drain Board Mats to fit
above sink. Shipping weight, about 4 pounds.
Price, each.....\$1.35



Corner Roll Rim Sinks. With right or left hand end piece. State which is anted.

wanted.

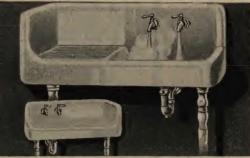
No. 42N39171½ Sink complete with trimmings, waste pipe to wall, as shown, for lead pipe. If wanted for iron pipe, add 75 cents extra.

Size, 20x24 in. (Shpg. wt., about 145 lbs.)...\$20.45

Size, 20x36 in. (Shpg. wt., about 155 lbs.)...\$24.65

Size, 20x36 in. (Shpg. wt., about 175 lbs.)...\$24.65

Size, 20336 inches. Price. 24.05
Size, 20336 inches. Price. 22.15



Corner Apron Sink.

With end piece and drain board on either right or left.

No. 42N391341/3 Complete with trimmings, waste pipe wall, as shown, for lead pipe. If wanted for Iron pipe, add

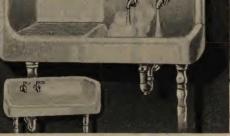


Kitchen Sink Outfit With Cistern Pump.

How to Order Pipe for Sinks

All the porcelain enameled sinks on this page and the opposite page are fitted for ¾-inch lead supply pipe and 1½-inch lead drain pipe. As stated above, we can also furnish them threaded for wrought iron pipe for 75 cents extra added to the prices given. You will find lead pipe and fittings on page 21 and iron pipe and fittings on page 21.

In figuring the supply pipe for cold water, just measure from your nearest cold water pipe, or from your tank and, of course, order the necessary elbows for making turns and whatever other fittings seem necessary. The hot water





Double Drain Board Apron Sink With Legs.

No. 42N391291/3 Sink complete with trimmings, waste pipe to the wall, as shown, for lead pipe. If wanted for iron pipe, add 75 cents extra.

Length over all, 62 in. Size sink, 20x26 in. Drain boards, 20x18 in. Shipping weight, about 300 pounds.

No. 42N491291/3 Sink complete with trimmings, waste pipe to floor, for lead pipe. If wanted for iron pipe add 75 cents extra.

cents extra.

In boards,

Startine length.

\$47.10

Stize of sink.

\$47.10

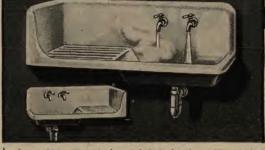
Drain board.

\$100 waste,

\$100 w No. 42N912B/s Sink only with strainer and coupling. If wanted threaded for Iron pipe, add 75 cents extra. Length over all, 62 in. Size sink, 20x26 in. Drain boards, 20x18 in. Shipping weight, about 290 pounds.

Price \$42.20

No. 42N1196 Rubber Drain Board Mats to fit above ak. Shipping weight, about 4 pounds.



Roll Rim Sink With Drain Board.
With right or left hand drain board. State which is wanted,
No. 42N39101/3 Sink complete with trimmings, waste pipe
wall, as shown, for lead pipe. If wanted for Iron pipe, add 75

Water May Be Drawn From the Pump Spout, Forced Into an Attic Tank or Used for Sprinkling, Etc.

Ning, Etc.

Perfection Kitchen Sink and Pump Outht No. 42N9078¼ consists of cast iron sink, porcelain enameled inside, 3-inch brass body cistern force pump with cock spout threaded for hose connection, three sink brackets, oak pump board and nickel plated brass trap fitted for iron pipe connection. For installing the outfit, or der sufficient 1¼ inch galvanized pipe to reach from the pump to the cistern or well, enough 1-inch galvanized pipe to run from the top of the pump to the attic tank, if one is to be used, and the proper amount of 1½-inch galvanized pipe to reach from the end of the trap at the floor to where the waste water is to be discharged. For galvanized pipe see page 23. Complete Installing directions with each outfit.

Shipping Wt.,

pipe is measured from your range boiler, or the nearest hot water pipe, in the same way.

The drain pipe is measured from the sink to wherever you will dispose of the waste water. For the drainage elbows and tees, in case you are using iron pipe, use drainage fittings as listed on page 23. These fittings are so constructed that they offer a perfectly smooth passage to the waste and thus prevent stoppage. If you have not already a vent pipe running to the roof of your house, enough pipe should be ordered to run this, as it prevents the water from being sucked out of your sink trap when the sink is being emptied.

If you are in any doubt as to just what fittings to order, we will gladly give you any advice you may wish.

Corner Sink with end piece and drain board on either right or left, State which is wanted.

No. $42\,N3\,9\,i\,3\,2\,l_3'$ Sink complete with trimmings, waste pipe to wall, as shown, for lead pipe. If wanted for Iron pipe, add 75 cents.

No. 42N9131½ Sink only with strainer and tallpiece. If wanted threaded for Iron pipe, add 75 cents.

Entire length. 44 in. 48 in. 52 in.

Size of sink. 20x28 in. 20x28 in. 20x28 in.

Shipping weight, about. 200 bs. 220 bs. 531.90

Easy to Install

Even if you have never done any plumbing, you will find it easy to install our fixtures if you are at all handy, and will thus be able to save considerable. We send full directions for installing with our sinks and other fixtures, and thousands of our customers have installed their own plumbing with no other help than this.

For rubber drain board mats see page

Apron Sink With
Drain Board and Legs:
right or left hand
drain board. State which is wanted.
42N39103½ Sink complete with
lugs, waste pipe to wall, as shown, for
pe. If wanted for Iron pipe, add 75

rimmings, waste pipe to wall, as shown. It wanted for Iron pipe, add 75 cents extra.

Size of sink. 20x26 in. 20x26 in. 20x26 in. 20x28 in. Shown. 20x26 in. 20x26 in. 20x26 in. 20x28 in. Shown. 20x26 in. 20x22 in. 20x24 in. Shown. 20x26 in. 20x26 in. 20x24 in. Shown. 20x26 in. 20x26 in. 20x24 in. Shown. 20x26 in. 20x26 in. 20x24 in. 20x26 in. 20x28 in. Drain board. 20x18 in. 20x26 in. 20x24 in. Price ... 20x26 in. 20x24 in. Size of sink. 20x26 in. 20x26 in. 20x24 in. Size of sink. 20x26 in. 20x26 in. 20x24 in. Size of sink. 20x26 in. 20x26 in. 20x28 in. Drain board. 20x18 in. 44 in. 48 in. 52 in. Size of sink. 20x26 in. 20x26 in. 20x28 in. Drain board. 20x18 in. 20x26 in. 20x28 in. Shown. 44 in. Size of sink. 20x26 in. 20x26 in. 20x28 in. Drain board. 20x18 in. 20x26 in. 20x28 in. Shown. 44 in. 20x26 in. 20x28 in. 20x28 in. 20x28 in. 20x28 in.



Corner Apron Sink with left hand end piece and right hand drain board, or the reverse. State

Taippece. If wanted threated for mapse. To cents. 75 cents. Leftire length. 44 in. 48 in. 52 in. Stage of sink. 20x26 in. 20x26 in. 20x28 in. Shpg. wt., about. 200 lbs. 230 lbs. 260 lbs. Price ... 330.40 \$35.70 \$40.90



Hercules Kitchen Sink and Pump Outfit.

Waste and Suction Pipe to the Floor Included.

Consists of cast Iron sink porcelain enameled Inside, 2½-inch brass lined pitcher spout pump, 1½-inch lead sink trap with iron pipe connections, high quality pump heard, three brackets, 1½-inch galvanized pipe from sink to floor, and 1½-inch galvanized pipe from pump to floor. When ordering include enough 1½-inch iron pipe extra to run from cistern or well to pump, and enough 1½-inch iron pipe to run from under floor where sink is placed to where you want to lead the waste water. Easy to install. Complete directions with each outfit. For iron pipe see page 23. State size.

Shitoping Wt.

No. 42N9075¼

No. 42N9075¼

Outfit complete with 18x30-inch sink. 195 lbs. 102. Outfit complete with 18x30-inch sink. 195 lbs. 102. Outfit complete with 20x30-inch sink. 197 lbs. 2021ft complete with 20x30-inch sink. 110 lbs. Outfit complete with 20x30-inch sink. 110 lbs. 14. Outfit complete with 20x40-inch sink. 115 lbs. 14.

Sinks, Floor Drains and Accessories

Sink, Back and Brackets.



No. 42N9080⁴/₄

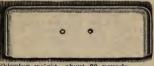
Size, inches... 18x30 18x36 20x30 20x36 20x40

Shpg. wt., abt. 88 lbs. 100 lbs. 89 lbs. 101 lbs. 110 lbs.

Price ... \$8.80 \$10.75 \$9.50 \$11.50 \$15.85

Above with waste threaded for iron pipe, 25 cents extra.

Cast Iron Sink Backs.



42N4651/4 Porcelain enameled, for flat rim sinks. 12 inches high and 1½ inches deep. Length, 24 inches.

ling weight, about 20 pounds

No. 42N4701/4

Length, inches... 24 30 36 40 42 48 Shpg. wt., abt., lbs. 30 38 45 50 50 55 57 Price\$3.80 \$3.90 \$5.80 \$6.50 \$6.85 \$8.55 No. 42N480¹/4 Same as above, 15 inches high and 21/2 inches deep.

Enameled Iron Drain Boards.

No. 42N9125¼ Reversible. With Iron bracket. For roll rim sinks. Size, 18x20 inches. Shipping weight, about 45 lbs. Price \$5.15

Size, 18x24 inches. Shipping weight, about 49 lbs. Price ... \$5.65 Size, 20x20 in. Shpg. wt., about 42 lbs. Price... \$5.50 Size, 20x24 in. Shpg. wt., about 61 lbs. Price... 6.10

Steel Sink Brackets.



Steel Sink Brackets.

Will fit any sink we carry not having wall hangers. Very neat in appearance. Lower part can be removed while upper part is being fastened to wall. Shipping wt., about 3 lbs. per pair.

No. 42N424 No. 1
Plain, for 16 and 18-inch sinks. Per pair....32c
12N425 No. 2 Plain, for 20-inch sinks arger. Price, per pair....35c

Kitchen Grease Traps.

Catches the Grease. Preventing It From Clogging Up the Drain Pipe.



No. 42N7001/4 With polished brass trimmings.

Above with all three connections threaded for 1½-inch iron pipe, 90 cents extra.





\$4.60 4.90 6.65 7.35 9.95 20x36x6 20x40x6 Cast Iron Half Circle and Corner Sinks.



16x24x6 18x30x6 18x36x6

No. 42N91301/4 With nickel plated strainer. Depth, 6 in.; back, 23½ in.; width, 13½ in. Fitted for 1½ or 1½ in. lead pipe. Shpg. wt., abt. 29 lbs. Painted inside and out. Price\$2.60

Porcelain enameled inside. Painted outside. Price....\$4.00

Above threaded for iron pipe, 25 cents extra.



No. 42N91351/4
With nickel plated strainer. Depth, 6 in.; sides, 17 in.; front, 231/4 in. Fitted for 11/4 or 11/2-in. lead pipe. Shipping weight, about 27 pounds. Painted inside and out.

Price\$2.60
Enameled inside

Enameled inside.
Painted outside.
Price\$4.00
Above threaded for iron pipe, 25 cents extra.

Covers for Cisterns, Catch Basins or Septic Tanks.



Waste Pipe for Sinks.

The waste of all sinks on this page should be connected to the drain with 1½ or 1½-inch iron or lead pipe, or 2-inch soil pipe. For Lead Pipe and Traps see page 21; for Wrought Pipe and Fittings see page 23, and for Soil Pipe and Fittings see page 20.

Steel Sinks Will Not Break.

Wrought Steel Sinks with flat rim. Made from one piece of steel. Su-



No. 42N3901/4	Painted	inside and	outside.	
Size, In. Shpg. Wt., Over All Abt., Lbs. 16x24x6 10 18x30x6 141/2 18x36x6 17	Price 2.20 2.70 3.45		Abt., Lbs.	Price \$3.20 3.95 4.70

No. 42N3911/4 Galvanized inside and outside. | No. 42 | No. 5 | 174 | No. 5 | 174 | No. 5 | 174 | No. 5 | N

This Is Same Sink as Above With a Roll Rim.

Made of one piece of steel finely finished. Very substantial throughout. Fitted with strainer and coupling for

strainer and coupling for 11/4 or 11/2-inch lead pipe. Any of the sinks below with waste fitted for 11/4 or 11/2-inch iron pipe, 25 cents extra. State which is wanted. Can be furnished in six different sizes as shown below. 20x30-inch is one most generally used.

No. 42N3921/4 Painted Inside and outside.

		N3031/	Galvaniz		and outside	
er A 24x 30x 36x	11 6 6	Abt., Lbs. 101/2 151/2 191/2	Price \$2.30 2.80 3.55	Over All 20x30x6 20x36x6 20x40x6	Abt., Lbs.	Price \$3.30 4.05 4.80
e. I		Shog, Wt.,		Size, In.	Shpg. Wt.	

This Sink Is Porcelain Enameled

42N3941/4 Wrought Steel Sink, percelain enameled white

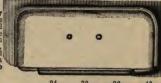
inside, blue outside. Handsome

and Bervicoable.				
Size, In. Over All	Shpg. Wt.,			
16x24x6	Abt., Lbs.			
18x30x6 18x36x6	28 35			
4020040				



Wrought Steel Roll Rim Sink Backs.

42N3951/4 42N395%
Used with our steel sinks. Have 2½-inch roll rim. Can be used only on Nos. 42N392¼, 42N393¼, or on a turned edge sink.



Shps. wt., about, lbs... 12 16
Painted Price... \$1.50 \$1.85
Galvanized Price... 2.00 2.30
White Enameled, Price... 3.30 3.85

Cast Cesspools or Floor Drains.

With bell trap. Placed in floor and connected to soil or sewer pipe. Half 8 trap shown not included.

No. 42N1710
Size, about 6x6 in.
Shpg. wt., about
5 lbs.
Price420 wt., about

No. 42N1711 Size, about 9x9 inches. Shipping weight, about 15 pounds. Price.....80c No. 42N1712 Size about 13x13 inches. Shipping wt., about 20 lbs. Price.....\$1.20



temperatures. Automatic flushing device opens supply valve and closes flush valve when seat is pressed down, filling tank through ½-inch supply pipe. When seat is pressed it lifts, closing supply valve and opening flush and by-pass valves, causing a forceful fan shape. It us hing which pass drains all water into 4-inch underground trap. All parts below floor can be burled in ground. Cast iron bowl, white porcelain enameled inside. Galvanized iron tank for working pressure of 85 lbs. Outfit consists of bowl, seat, tank, valve, piping and trap, as Illustrated. Supply pipe threaded for iron pipe, 50 cents extra.

Philadelphia Porcelain Enameled



tion, allow 50 cents extra.

High Quality Closet Seats With Covers.

Made of solid oak with brass nickel plated hinges.
No. 42N928¼ Natural 0ak Finish Closet Seat, to be used on No. adelphia Hopper. Shpg. wt., abt. 13 lbs.

Price \$2.25

No. 42N1065½
6 olden Oak Finish
Closet Seat, to be used
on any siphon jet or
washdown bowl. Shipprice ... \$2.25
No. 42N1066½ Same as above,
except quarter sawed oak finish.
Price ... \$2.75

Made of brass. Furnished complete with jam nut and union connection for supply pipe. Shipping wt., No. 42N1479 For low closet tank, complete as illustrated.



Solid oak tank, oak seat with cover, siphon washdown bowl. Shpg. wt., about 105 lbs. Read full description in center of page.

denter of page. 42N136¼ H ig h Tank Outfit. Price\$22.90 42N1069¼ Tank on iy. 8hpg. wh. abt. 35 lbs. 7Price\$10.00 No. 42N944¼ Bowl only. Shipping weight, about 50 lbs. Price...\$9.65 Supply pipe threaded for Iron pipe, 50 cents extra.

Bowl.
Solid o a k
tank, oak seat
with cover, siphon jet bowl.
Shipping wt.,
about 110 lbs.
Read full description in
center of page.

center of page.

42N 141/4
H 1g h Tank
Oufit with siphon jet bowl.
Price.\$30.75
42N 1070/4
Tank only.
Shipping wt.,
about 35 lbs.
Price.\$10.00
42N 949/4
Bowl on lly.
Shipping wt.,
about 50 lbs.
Price.\$15.95
Supply pipe
threaded for lron pipe, 50
cents extra.

Self Active

Self Acting Hopper Closet.

No. 42N 100¼
Automatically flushes bowl when seat is down. Shute off water when seat is released. For basements, factories and outhouses where there is no danger of freezing. Cast 1 ron bowl, por call enameled inside and painted outsides and painted outsides. For ½, she for %, which 1 ea d pipe. A soil tran (see page 20) and soil pipe to reach to sewer and water piping are only extras needed. Shipping wt., about 45 pounds.

Frice, complete. \$8.00

Price, complete\$8.00
Tapped for ½-inch iron pipe, 50 cents

Rubber Ball Valves for
Low Closet Tanks.
No. 42N 1072 Standard
connections for ataching to
valve stem. Shpg, wt., abt. 6 oz.
2-in...200 2½-in...30c 2¾-in...30c
Water Closet Brushes that reach
all parts of bowl. Bristles on
heavy wire frame, wood har-

weight, about 1 pound.
No. 42N1241 Palmetto Fiber Brush.
Price
No. 42N1240 White Fiber Brush.
Price 180

Bathroom and Kitchen Inimmines



Bathroom Trimming Set. No. 42N 1206 Includes following articles on this page: No. 42N1183, 18-Inch Glass Towel Bar; No. 42N1188, Wall Soap and Tumbler Holder; No. 42N1193, Six-Compartment Tooth Brush Holder; No. 42N1233, Toilet Paper Holder; No. 42N140, Bathtub Soap Dish; No. 42N1221, White Bathtub Seat. Shipping wt., 15 lbs. Price, per set. \$3.75

Tive Till

اللها

1226 ½-Inch Glass Shelf, edges, 1-inch glass bar. About 5x24 inches. Shipping wt., 11 lbs. Price...\$3.60 42N 1226 42N1225 42N1230

No. 42N 1227 Opal Glass Shelf, % inch thick, white enameled brackets. Weights, 5½ and 7 pounds. 5x18 inches. 1.10 5x24 inches. 25

1

No. 42N1223 ½-In. Glass Shelf, rounded edges. About 5x24 inches. Shipping weight, about 7 lbs.

All trimmings shown on this page, unless otherwise described, are made of brass, nickel plated and polished. Nickel plated screws are included with all fixtures that fasten to the wall. For other bathroom hardware see page 1389 of our big General Catalog No. 137.



Bathroom Trimming Set.



No. 42N1192 Double Arm Towel Bar. Length, over all, about 12 inches. Shipping weight, about 1½ pounds. Price. 670

No. 42N | 189 %-inch Towel Bar. Shipping weights, about 24, 2½ and 3½ pounds. Length, 18 in., 60c; length, 24 in., 65c; length, 30 in....75c

minimining. No. 42N1224 %-Inch Glass Shelf. Rounded edges. About 5x24 inches. Shipping weight, about 5% pounds. Price.\$1.10

No. 42N1190 I-Inch Crystal Glass Towel Bar. Weights, 3½, 4 and 4½ lbs. Length, 18 in., \$1.40; length, 24 in., \$1.60; length, 30 in......\$1.70

No. 42N1187 %-Inch Towel Bar, Shpg. wts., about 24, 24 and 34 lbs. Length, 18 in., 75c; length, 24 in., 82c; length, 30 in.......90c



42N1144 Kitchen Soap Dish with Dish with spring hangers. Hangs between faucets. Size, about 3%x5½ inches. Shipping weight, abt. 1 pound. Price. 40c Faucets not included.

42N1140 Soap Dish for rlm of bath-tub. Size, about 4x5 in. Shpg. wt., about 12 oz. 50c

No. 42N1110
Single Robe Hooks,
with screws. Nickel plated. Shipping wt.,
about 2 ounces.
Each ... 7c
Per doz. ... 7c
Per doz. ... 7c
No. 42N1115
Double Robe Hooks.
Nickel plated. Medium size, with
screws. Shpg.
wt., abt. 2 oz.
Each ... \$0.10
Per doz. ... 1.10

\$1.35 1.30 1.75 1.70 1.85

No. 42N 104 Radiator Brush with long handle. For dusting between sections of radiators. Shipping weight, about 1 lb. Price ... 18c

Bathtub Seat, made of oak in golden oak finish, or birch, white enameled. Steel rods nickel plated and rubber covered. Shipping wt., about 7½ pounds.



No. 42N1217 Spray with Nickel Spray Head. 5 feet white rubber hose and faucet connection. Shpg. wt., about 1 lb. Price...72c No. 42N1218 Extra quality red rubber Spray with patent bulb to fit bath cock, otherwise as above. Shpg. wt., about 1 lb. Price...90c

42NII35
Comb and
Brush Tray,
el plated. Size,
4x10 inches.
wt., abt. 12
Price....92c

42NII42
Wall Soap
Cup, with removable opal glass
dish. Size, abt. 3½x
5½ in. Shpg. wt.,
abt. 2 lbs. ... 65c

42N1141
Wall Soap
Cup, with wash
cloth hook. Nickel
plated. Shpg. wt., abt.
8 oz. Price...420

42N 1193
Nickel Plated
Tooth Brush
Holder, for 6 brushes.
Shipping wt., about
3 oz. Price...18c

42N 1 1 65%
42N 1 1 65%
Bathroom Mirror. Bevel
plate glass, mounted in nickel plated brass frame. Size, over all, about 12x20 inches. Shipping wt., about 10 lbs. Price. 4.60
For full line of mirrors see page 1034 of our big General Catalog No. 137.

42N | 20 | White Enameled Wood Bath Stool. Height, about, 18 in. Shipping wt., about 8 lbs. Price\$1.40

42N1166 Combina-Combination Tumbler and
Soap Holder.
Made of brass
heavily nickel
plated. Shipping
wt., about 12 oz.
Price, without
tumbler... 70c
See Tumbler No.
42N1169 listed below.

42N1168
Wall Soap
and Tumbler Holder with removable opal glass soap dish and tumbler. Shipping weight, about 2½ lbs.

Price, complete\$1.35

42N1155 Tumbler Hold-er. Shipping weight, 8 oz. Price, without tumbler. 350

42N | 169 Opal Tumbler. Shipping weight, about 8 oz. Price..... 150

42N1228
Tollet Paper
Holder. With
black enameled wood
roller. Shipping wt.,
about 6 ounces.

Price.....250
Paper not included.





42N1170
Wall Soap,
Tumbler and
Tooth Brush
Holder with removable opal
glass dish and
tumbler. Shpg.
wt., abt. 2½ lbs.
Price, complete\$1.65

42N 1153
Wall Tumbler
Holder with
jewel or wash cloth
hook. Nickel plated. hook. Nickel plat
Shipping wt., ab
8 oz. Price, with
tumbler
See Tumbler
42N1169 priced
center of this pag

center of this page.

42Nii60
Tooth
Brush and Tumbler Holder,
Shog, wt., abt. 9 oz.
Price, without tumbler Tumbler No. 42N1169 on this page.

No. 42N1233
Tollet Paper Holder.
Made of brass
hearily nickel
plated. Shpg.
wt., about 9
ounces. Price... 45c
Paper not included.

No. 42N1195
Mat; placed in bathtub to prevent slipping. Also very comfortable to feet and body. Good rubber with surface roughened, not perforated. Size, about 12x30 inches. Shipping wt., about 2½

forated. Size, about 12x30 inches. Shipping wt., about 2½ lbs. Price....\$1.00



No. 42N1220 Monarch Combination Massage Brush and Spray. 3-inch brush, rubber teeth, perforated, producing shower effect. Five feet red rubber tubing, aluminum faucet attachment. Shipping wt.. 2 pounds. Price. \$2.20 No. 42N1250%
Perfection Portable
Shower. For country
home. 5-gallon galvanized iron tank with
brass shut-off, nickel
plated shower yoke
and rubber hose. Shpg.
wt., about 6½ lbs.
Price.....\$3.50

No. 42N 1248
Shewer Bath Yoke. Can
be used without wetting head or splashing
walls or floor. Water
directed inward. Yoke
brass, nickel plated, 5
feet of rubber hose and
bath cock connection.
Shipping weight, about
3 lbs. Price. \$1.45

18

A Stationary Laundry Tub Saves Time and Work



The two-compartment tub shown at the left is furnished with metal rim and wringer guards and painted waste connections. Each compartment has a brass waste plug, but prices shown below do not include faucets. Either No. 42N758 or No. 42N755 Laundry Bibbs, listed on this page, can be used. The compression bibb is the most popular, as it fits closer to the back of the tub. Read below "About Waste Pipe."

All tubs measure 24 inches from front to back and are 16 inches deep. Dimensions are over all and may vary slightly. Shipped from factory in NORTHEASTERN ILLINOIS.

No. 42N7331/3 Length over alf, 48 Inches. Shipping weight, about 380 pounds. Price.................\$9.35 No. 42N734/3 Length over all, 54 Inches. Shipping weight, about 400 pounds. Price...........\$10.55

If wanted with waste opening threaded for Iron pipe allow 25 cents extra.

Steel Clothes Posts.

Why put up with heavy, clumsy wood posts, which rot and break, when Steel Posts cost no more?

No. 42N514¹/₄
Hercules Steel Posts,
galvanized. Shpg. wt.,
same as above.

Each\$2.50



Granitine Tubs With Backs.

These tubs are of exactly the same construction as described above, except they have a back 6 inches high. All measure 24 inches from front to back and are 16 inches deep. Dimensions are over all and may vary slightly. Prices shown below do not include faucets. Suitable faucets are listed below under Nos. 42N758, 42N759 and 42N755. For the proper waste connections read above, "About Waste Pipe." All tubs shipped from factory in NORTHEASTERN ILLINOIS.

NOTICE—We also furnish Porcelain Enameled Pedestal Two-Compartment Laundry Tubs With High Backs. Prices quoted on application.



Three-Compartment Tubs With Backs.



42N1307
Nickel Plated
Brass Combression Bath
Cock. Combination hot and
cold. Size, ½
inch. High quality. Latest design.
Shipping wt., about
3½ pounds.
\$3.25

Price\$3.25
Above threaded for iron pipe, 50 cents extra.

No. 42N1302
No. 4½ Fuller Combination Hot and Cold Brass, nickel Brass, nickel plated, complete, ready for use. Size, ½ inch. Heavily made. Carefully machined. Shipping weight, about 4 pounds. Price
Above threaded for iron pipe, 50 cents extra.

No. 42N1267 Compression Basin Cock, Low down pattern, cross handle. Indexed hot and cold. State which is wanted. Made of brass, heavily nickel plated. Size, % inch. Shipping weight, about 2 pounds. \$1.10

No. 42N1277
High Grade Fuller
Basin Cook, Brass,
alckel plated. Size, %
linch. In ordering sine
ple faucets be sure to
state whether left or
right hand is wanted.
Shpg. wt., abt. 2½ lbs.
Price\$1.32

Price\$1.32 | No. 42N | 380 | Rubber | Fuller Balls. For Fuller Bibbs and Cocks. Shipping weight, per dozen, about 8 ounces. | Size Bibb, Cold, Hot, Inch Dozen Dozen Dozen | 150 | 250 | 180 | 300 | 140 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 160 |





Hose Laundry Bibb.
Polished brass. For
½-inch iron
pipe and ½ or ¾ inch
hose. Shpg. wt., about 8 oz.

42N759

Com pression

42N755
Fuller Laundry Blbbs.
Polished brass.
Threaded for iron 42N755
Fuller Laundry Bibbs.
Polished brass.
Threaded for iron
pipe. Shipping weight, about
13, pounds. State whether
right or left is wanted.
Price, 3/- inch....\$1.05
Price, 3/- inch....\$1.05

d hot and cold. Exceptionally high quality material and workmanship. Suitable for severe service.

No. 42N1308 Bath Cock
at right. Size, ½ in ch.
Combination hot and cold.
Shey. wt., about 4
hbs. Price...\$3.55
Above threaded for iron pipe, as illustrated, 50c extra.
No. 42N1268 Basfn Low down

Size, ¾ in... \$1.18
Size, ¾ in... \$1.27

No. 42N1331 Hose Bibb at pattern. Indexed hot and cold. State which is wanted. Shipping weight, about ½ and 2 pounds.

No. 42N1331 Hose Bibb at pattern. Indexed hot and cold. State which is wanted. Size, ¾ in... \$1.27

No. 42N1331 Hose Bibb at pattern. Indexed hot and cold. State which is wanted. Shipp, wt., about ½ and 2 pounds. Rapid Compression Bibbs and Cocks. Size, ½ in... 1.27

No. 42N1331 Hose Bibb at left. Indexed cold only. Shipping weight, abt. 1½ and 2 lbs. Size, ½ inch. Price....\$1.27
Size, ¾ inch. Price....\$1.23 pounds. Price.....\$1.27
Threaded for Iron pipe, as Illustrated, 25 cen



Shipping weight, Price....880 Size; % inch. about 1% pounds.





is. Price...\$1,00

No. 42N1330
Compression Hose
Bibbs with Hange,
threaded for Iron
pipe. Polished brass.
Size, ½ inch.
Shipping weight,
about 1½ pounds.
Price....\$1,10

brass.
Size, ½ inch.
about 12 oz. Price..85c
inch. Shipping weight,
pounds. Price....92c



No. 42N1370
Fuller Hose Blbbs,
for lead pipe connection. Polished
brass.
Size, ½ inch.
Shipping weight,
S. Price. 920
Shipping weight,
Price. \$1.01 Size, % inch. about 1 pound.



Size, ½ inch.
Shipping weight,
Price....84c.
Shipping weight, about 14 ounces.
Size, % inch.
about 1 pound. Price.....920



No. 42N 1382
Fuller Pattern Hose
Bibbs for iron pipe.
Polished brass.

China Handle Nickel
Plated Brass Fuller
Plain Bibbs, for
iron pipe, Indexed
hot or cold. State
which is wanted.
Size, ½ inch. Shipping
about 1 pound. Price.
Size, ¾ inch. Shipping
about 1½ pounds. Price.



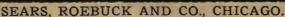
No. 42N1345
Fuller Plain
Bibbs, with flange.
Threaded for
iron pipe.
Size, ½ inch.

No. 42N 1350 Fuller Hose Blbbs, with flange. Thread-ed for iron pipe.

No. 42N 1385
Plain Polished Brass
Ground Key Bibbs,
for iron pipe.

Fight Polished Brass
for iron pipe.

Size ½ in c. h.
Size ½ in ch.
Size inch.
Size inch.
Shipping weight,
sbout 1½ pounds,
Size 1 inch.
Size 1 inch.
Size 1 inch.
Shipping weight,
Price...\$1.98



Cast Iron Soil Pipe and Fittings

Double Hub Soil Pipe.

Sold in 5-foot lengths only. No waste in cutting, as each part will have a hub.

No. 42N 1558/4
Standard. 2-inch. Shpg.
wt., about 19 lbs. Price, per 5-foot length. \$1.18
4-inch. Shipping wt., about 36 lbs. Price, per 5-foot length....\$1.68
4-inch. Shipping wt., about 36 lbs. Price, per 5-foot length....\$2.04

Cast Iron Traps.
Used with closets having no trap, to prevent wer gas and stench coming up through closet

Half S Traps.



Size, 4 Inches.
No. 42N 1635/4
Standard. Shipping wt.,
abt. 21 bs. Price.\$1,34
No. 42N9 1636%
Extra Heavy. Shgg. wt.,
abt. 25 bs. Price.\$1,66

Running Trap With Clean Out Hole and Cover.



Size, 4 Inches, No. 42N 1702 4
Standard. Shpg. wt., abt, 23 lbs, Price...\$2,22
No. 42N9 1702 4
Extra Heavy. Shpg. wt., abt, 31 lbs, Price.\$2.76

S Traps.



Size, 4 inches, No. 42N 1630 4
Standard. Shpg. wt., abt. 23 lbs. Price...\$1,34
No. 42N 9163 1 1/8
Extra Heavy. Shpg. wt., abt. 28 lbs. Price.\$1,68

Long Increasers.



Required at top of soil stack where going through roof to increase opening and prevent clogging with frost.

No. 42N 1605 / 4 Standard. Size, 2 to 4x 24 inches. Shpg. weight, about 16 pounds.

Price.......\$1,20

24 inches. Shpg. weight, about 16 pounds.
Price.....\$1,20
No. 42N1607/4
Standard. Size, 4 to 5x
30 inches. Shpg. weight, about 22 pounds.
Price.....\$1,62
No. 42N91606/4
Extra Heavy. Size, 2 to 4x24 inches. Shpg. wt., about 17 pounds.
Price.....\$1,26
No. 42N916008/4
Extra Heavy. Size, 4 to 5x30 inches. Shpg. wt., about 30 pounds.
Price....\$1,30

Ventilating Caps.



S Trap With Vent.



Size, 4 inches with 2-

No. 42N1645¹/₄
Standard. Shpg. wt., abt.
23 lbs. Price...\$2.04
No. 42N91645¹/₄
Extra Heavy. Shpg. wt., abt. 35 lbs. Price.\$2.45

Half S Trap With Clean Out Hole and Cover.



Size, 4 inches. No. 42N i 636 \(^4\) Standard. Shpg. wt., abt, 16 lbs. Price...\(^2\), 22 2 No. 42N 9 i 686 \(^4\) Extra Heavy. Shpg. wt., abt. 24 lbs. Price.\(^2\), 76

Running Trap With Vent.



Cast Iron, for Soil Pipe.

No. 42N1700/4
Standard. Size, 2 inches, with 2-inch vent. Shipping weight, about 7 lbs.

Price. \$1.13

Price. \$1.13 No. 42N917000\(^4\)
Extra Heavy. Shpg. wt. abt. 10 lbs. Price. \$1.38 Size, 4 lnehes, with 4-inch vent.

No. 42N1701\(^4\)
Standard. Shpg. wt., abt. 24 lbs. Price. \$2.04 No. 42N91701\(^4\)
Extra Heavy. Shpg. wt., abt. 38 lbs. Price. \$2.46

Branches Tapped for Iron Pipe.



No. 42N 16701/4 Size, Shpg. Wt., In. Abt., Lbs. 2x1½ 4x1½

42N9 1670/4 Extra Heavy.

\$0.76 |.13 |.14



For reducing 4 - inch soil pipe to 2 inches.

No. 42N1616164
Standard. Shpg. weight, about 4 lbs. Price..36c

No. 42N9161674

Every Hanny Chirchia Extra Heavy. Shipping weight, about 5 pounds.

Price.....4 ic CAST iron soil pipe and fittings are tarred inside and out. They are used for conveying the waste water from plumbing fixtures to the sewer or drain. Each piece of pipe and fitting has a hub on one end, except double hub soil pipe which has a hub on each end. Soil pipe is connected by placing the end of one fitting or pipe into the hub of another, packing a small amount of oakum into the joint and then pouring molten lead on top of the oakum until the hub is full. After the lead is cool it is driven down tight with a calking chisel and hammer. Four-inch soil pipe and fittings are necessary where a closet discharges into the drain; for lavatories, bathtubs, sinks and laundry tubs the 2-inch size is large enough. Oakum, lead, calking chisels and other plumbing tools are shown on page 21.

Quarter Bends.



For Soll Pipe.
No. 42N | 565 1/4
Standard. 2-inch. Shpg.
wt., about 41/2 lbs.

No. 42N91568% Extra Heavy. 4 - inch. Shpg. wt., about 16 lbs. Price......780

Quarter Bends.



With Side Inlet.
Either right or left hand. State which is wanted. Size, 4 inches, with 2-inch side inlet. Shpg. wt., about 12 lbs.

No. 42N 15761/4 Standard, Price..\$1.13 No. 42N91576¹/₄ Extra Heavy. Shipping weight, about 19 pounds. Price.....\$1.38

Quarter Bends.



With Heel Inlet.

No. 42N|6951/4 Standard. e. Shpg. Wt., Abt., Lbs. Price 2 12 12 1.14 No. 42N916951/4

\$1.38



No. 42N15621/4 Standard. Shpg. Wt., Abt., Lbs. 310

No. 42N915621/4 Extra Heavy. Shpg. Wt., Abt., Lbs. 360

Pipe Rests.



For Holding Soll Stack. No. 42N1625
Standard.
Size Shpg.Wt.,Abt. Price
2 in, 2½ lbs 260
4 in, 3 lbs. 36c

No. 42N91625 Extra Heavy. 5 Size, In. Price 2x1½ 360 4x1½ 40c 4x2 Size Shpg.Wt., Abt. Price 2 in. 4½ lbs. 360 4 in. 4¾ lbs. 400

Iron Soil Pipe.

Single hub; comes in 5-foot lengths only, 2-inch soil pipe is used for waste stack to run from sever to roof of house, taking waste from plumbing fixtures. 4-inch soil pipe is used for waste stack to run from sewer to roof, taking waste from closet.

Sanitary T Branches.



Used in soil stack to connect to waste of lavatories, sinks and closets. No. 42N | 580/4 Standard. 2 x 2 inches. Shps. wt., about 5 lbs. Price. Sps. wt., about 10 lbs. Price. Sps. wt., about 10 lbs. Price. Sps. wt., about 10 lbs. Price. Sps. wt., about 14 lbs. Price. Sps. wt., about 14 lbs. Price. Sps. wt., about 14 lbs. Price. Sps. wt., about 18 lbs. Price. \$12.5 No. 42N | 1584/4 Standard. 4 x 2 inches. Sps. wt., about 11 lbs. Price. \$1.25 No. 42N | 1584/4 Standard. 4 x 2 inches. Sps. wt., about 11 lbs. Price. \$1.25 No. 42N | 1584/4 Standard. 4 x 2 inches. Sps. wt., about 11 lbs. Price. \$1.25 No. 42N | 1584/4 Standard. 4 x 2 inches. Sps. wt., about 11 lbs. Price. \$1.25 No. 42N | 1584/4 Standard. 4 x 2 inches. Sps. wt., about 14 lbs. Price. \$1.25 No. 42N | 1584/4 Standard. \$1.25 No

Branches, Tapped for Iron Pipe.



No. 42N 16501/4 Standard. No. 42N9 650 115 Extra Heavy. Size, Shps. Wt., In, Abt., Lbs. 2112 2

Tapped Crosses.



Side openings, tapped for iron pipe. Used to connect vent pipes of sinks or lavatories on op-posite sides to the same

Dosine sites in the carsoli stack.

No. 42N 1572 4

Standard.

Size, Shpg. Wt.,

In. Abt., Lbs. Pr.

2x1 1/2 5 \$1.0

4x2 9 | ...

4x2 8 | ...

No. 42N 9 1572 4 No.



Used to connect two closets, lavatories, sinks or tubs on opposite sides of same soil stack.

No. 42N16851/4

Size, Shpg. Wt., In. Abt., Lbs. 2x2 71/2 1.13 No. 42N916851/4

Extra Heavy. Shpg. Wt., Abt., Lbs. 4x2 4x4

Tapped Sanitary Crosses.



Side openings, tapped for iron pipe. No. 42N i 5731/4

Size, Shpg. Wt., In. Abt., Lbs. 2x1½ 6 4x1½ 11½ 4x2 10 \$1.13 1.56 1.58 In.
2x1½
4x1½
4x2 No. 42N915731/4 Extra Heavy. Shpg. Wt., Abt., Lbs. Size. In. 2x1½ 4x1½ 4x2 11 14½ 13

Offsets.



No. 42N 16901/4 Standard. Size,

In. 2x 4 2x 6 2x12 4x 4 4x 6 4x12 No. 42N916901/4 Extra Heavy. Shpg. Wt., Abt., Lbs. Size,

Y Branches.



No. 42N 1680/4 Standard. Size, Shpg. Wt., In. Abt., Lbs. Pr 2x2 5 4x2 10 7 8 10 17 50c 50c 76c 890 22N91680% Extra Heavy, Shops Wt., Abt., Lbs., Pringle Price \$0.67 .98 1.25 2x2 4x2 4x4

Clean Out Y With Brass Screw



Cast Iron Closet



No. 42N1902¼
Size, 4x18 in. Has adjustable floor flange and bolts, tapped on both sides for 1½-inch iron pipe. Shipping weight, about 19 pounds.

Price \$2.76

Closet Bend With Graphite Washer.

No. 42N 1903/4/
Same as No. 42N 1903/4/
Same as No. 42N 1902/4
above, except fitted with
brass inner collar a n d
graphite gasket, making
the use of putty unnecessary. Shpg. wt., about
19 lbs. Price....\$3.66
For Lead Bends a n d
Ferrules see page 22.

Adjustable Roof Flanges.



Price 2.48
5 inch copper.
Price 3.30

Sanitary T Branches With One Side Inlet.



Used in stack for waste of closet, with side opening for waste of lavatory side opening for waste of lavatory and bathtub. Size, 4inches. Either right or left side inlet. State which is wanted. Shpg. wts., standard, about 18 lbs.; extra heavy, about 22 lbs.

No. 42N15901/4 Standard.

With 2-inch side inlet for soil pipe.
Price\$1.78 for soil pipe.
Price\$1.78
With 1½-inch tapped side inlet for iron pipe.
Price\$2.22
No. 42N91590%

Extra Heavy.

With 2-in. side inlet for soil pipe.
Price \$2.17
With 1½-inch tapped side inlet for iron pipe.
Price \$2.58

With Inlets on Both Sides.

No. 42N15911/4 Standard.

With 2-in. side inlets for soil pipe. Price...\$2.70 With 1½-in. tapped side inlets for iron pipe. Price\$3.60

No. 42N9159114 Extra Heavy.

With 2-in. side inlets for soil pipe. Price...\$3.06 With 1½-in. tapped side inlets for iron pipe.

Price\$3.96

Service or Stop Cock Boxes.



Made of Cast Iron, Japanned.

No. 42N17061/4 Diam., 2½ in., extends from 36 to 52 in. Shpg. wt., about 26 lbs. Price\$2.40

No. 42N17071/4 Diam., 2½ in., extends from 54 to 78 in. Shpg. wt., about 34 lbs.

Price\$3.20

... 3.30

Hot Water at the Turn of a Faucet



Standard Vertical or Horizontal Range Boilers.

Guaranteed for one year to withstand a pressure of 85 pounds. Read full description above. Where the regular or fire pressure is more than 85 pounds an extra heavy boller should be used. A stand, inner tube and set of brass couplings for %4-inch lead pipe connection are included with each vertical boiler. Couplings only are furnished with horizontal boiler. State size boiler wanted and whether vertical or horizontal.

No. 42N 10931/4 Standard HORIZONTAL Range Bollers No. 42N10811/4 Standard VERTICAL Approximate
capacity,
gallons...
Size, inches
Shpg. wt.,
abt., lbs... 40 14x60 30 12x60 40 14x60 52 16x60 30 12x60 90 101 155. 90 101 \$15.65 \$19.95 \$28.35 \$15.60 \$19.90 \$28.30

Above prices are for bollers fitted with 34-inch lead pipe connection. If galvanized couplings are wanted for 34-inch iron pipe, add 20 cents.

Extra Heavy Vertical or Horizontal Range Boilers.

Guaranteed for Three Years to Stand 150 Pounds Working Pressure, Read full description above. Vertical boilers have stand, tube and couplings. Horizontal boilers furnished with couplings only. Much heavier that boilers listed at left. Should be used in cities having a water pressure of over 85 pounds. Will outwear the standard boiler and withstand a pressure of 150 pounds. State size boiler wanted and whether vertical or horizontal.

Extra Heavy VER- No. 42N 1096 4 Extra Heavy HORIZONTAL Range Boilers. No. 42N10871/4 TICAL Range Bollers. Approximate c an acity, gallons... 30 40 52 30 440 52 812x60 81 12x60 14x60 16x60 12x60 14x60 16x60 12x60 14x60 16x60 172 119 136 172 119 172 119 136 172 119 172

Above prices are for boilers fitted with 34-inch lead pipe connection. If wanted with galvanized couplings for 34-inch iron pipe, add 20 cents.

Range Boilers Only.

Boilers only, without tube, stand or couplings, VERTI-CAL or HORIZONTAL. State which style wanted and size. No. 42N10751/4 Stand-

No. 421 ard. Size, Cap'y., Shpg. In. Gal. Wt., Lbs. Price 12x60 30 80 \$ | 4.40 14x60 40 90 | 18.70 16x60 52 145 26.05 No. 42N10761/4 Extra Heavy.

\$18.55 23.40 30.65



Rope Oakum. No. 42N1866¼ For calk-ing iron soil pipe and fittings. A 4-inch soil pipe joint requires & pound of oakum; a 2-inch joint, ¼ pound. Price, per pound...\$0.10 Per 50-pound coil....4.75

The plumbing tools need and for installing lead joints in soil pipe and fittings, and for installing lead and brass pipe and fittings. When calking joints oakum (No. 42N186034) is forced into the joint with a yarning iron (No. 42N1825), and molten led is then poured in on top of the oakum with a pouring ladle. After lead cools it is forced down solid into joint with a calking chisel (No. 42N1831), Plumbers' blast furnaces, melting pots and ladles on page 27.

Plumbers' Wiping Cloth. 42N1845 Made of good quality ticking. Shpg. wt., about 2 ounces.
Price 150

Asbestos Joint Runner.
With Pouring Cup.
No. 42N1815 For running
moiten metal in horizontal soil,
water or gas pipe. Illustration
shows runner as applied to pipe.
For 2, 4, 5 and 6-inch pipe. Shpg.
wt. about 2 lbs.
Price, each ... \$1.65



Half S Lead Traps
With Iron Pipe
Connections.

Full S Standard Lead Traps.

42N1490

Brass Soldering Bushings.





No. 42N 1835 For boring and reaming lead pipe. Steel blade. Shipping wt., about 12 ounces. Price190

Turning Pine.

No. 42N1810
For spreading openings in lead plpe. Shipping weight, about 12 oz.
No. 1, for 1-inch or maller pipe.
Price Boxwood Drift

Or spreading lendings in lead ip e. Shipping about 12 oz., for 1-inch or pipe. 12e, for 2-inch or pipe. 12e, for 2-inch or pipe. 14e, for 2-inch or pipe. 14 Price12c
No. 2, for 2-inch or
naller pipe.
Price14c



No. 42N 1504
Size, 1¼ inches. Shipping weight, about 4
lbs. Price.....55c
No. 42N 1505
Size, 1½ inches. Shipping weight, about 4½
pounds. Price....81c

Male Straight Soldering Nipples.



No. 42N1435
Threaded for iron pipe outside. Solid brass. Size, Shps. Wt., In. Abt., Oz. Price 14 2 1 6 28c 14 8 33c 14 8 33c 14 2 9 44c 2 12 77c

Oval Shave Hook.



Three-Quarter S Lead Traps.

No. 42N 1508 Size, 11/4 inches. Shir ping wt., about 4 lb

Brass Soldering Unions.



Gem Bibb Seat

Boxwood Dresser.

Traps.
Standard Sink and Basin Traps.
No.
42N1497.
Slize, 11/4 in.
Shipping wt., about 5½ lbs.
Price. 99e
10. 42N1499 Extra Long S Lead Traps. 42N1502 Size, 1¼ in. Shpg. wt., about 5 pounds. Price, \$1.85

Lead Pipe. No. 42N18701/4 Prices subject to market changes. Sizes given are in-side diameter of pipe.

Size

½ in. diam.
¾ in. diam.
1 in. diam.
1¼ in. diam.
1½ in. diam.
2 in. diam.
4 in. diam. Per Foot Weight Weight
10 oz. to ft.
1 lb. to ft.
1 lb. to ft.
1 lbs. to ft.
2 lbs. to ft.
3 lbs. to ft.
4 lbs. to ft.
5 lbs. to ft. 10

Medium Weight Lead Pipe. Prices subject to market changes.

Size,	No. 42N18751/4	Price,
Inside 1/2 in, diam,	Weight 1½ lbs. to ft.	per Foo
% in diam.	2 lbs. to ft.	240
% in. diam.	21/4 lbs. to ft.	280
in. diam.	31/4 lbs. to ft.	40c

Sheet Lead.

No. 42N1800 For heating or dressing lead pipe. Shipping weight, about 1½ lbs. Price 60c Price, ½2-inch, per square foot. 32c Price, ½2-inch, per square foot. 32c Price, ½2-inch, per square foot. 51c

Lead S
Traps With
Iron Pipe
ConnecItions. Three-Quarter S Lead Traps With Iron Pipe Connections.

42N1493
Size, 1½ in.
Shpg. wt. abt.
4 lbs. \$1.46
Size, 1½ in.
Shpg. wt. abt.
4 lbs. \$1.46
Size, 1½ in.
Shpg. wt. abt.
4 lbs. \$1.46
Size, 1½ in.
Shpg. wt. abt.
5½ lbs. \$1.82
Steel Spring Pipe Bender.

No. 42N1510

1½-in. Shpg. wt. abt.
3½-lbs. Price. 3 24

1½-in. Shpg. wt. abt.
1½-in. Shpg. wt. about
4 lbs. Price. 3 168
Price of all lead
app, bends, traps and
ferrules are subject to
market changes.

(Management SOLDER MANAGEMENT

No. 42N1820 For bending smaller size lead pipe and flanging out edges of holes. Shpg. wt. abt. 1½ lbs...16c No. 42N1821 Same as above, except one end turned. other end straight. Price...16c Pig Lead.

changes

Calking [

No. 42N1900 For making wiped solder joints. Bars are about 1½ pounds each. Less than a bar not sold. Very high quality. Price, per bar... 82c

For tinners' solder and block the general 145 tin, see page 1415. Yarning Iron.

Chisel.
No. 42N | 83 | Straight Calking Chisel.
For calking soll pipe and fittings. Shop.
wt., about 1 lb.
No. 42N | 830 | Right or left hand ofset calking chisel. State which is wanted.
Shop. wt., abt. 1½
31 clibs. Price...30c Plumbers' Wood Gouge.

Plumbers' Wood Chisel.

Pipe Coverings, Straps, Bends, Traps

For Connecting Closet Bowls to Soil Stacks.

Cast Iron Closet Bend.



No. 42N 1902¼ Size, 4x18 inches. Has adjustable floor flange and bolts, tapped on both sides for 1½-inch iron pipe. Shipping weight, about 19 lbs.\$2.76

Closet Bend With Graphite Washer.

Washer.

No. 42N1903½ Same as No. 42N1903½, except fitted with brass inner collar and graphite gasket, making the use of putty unnecessary. Shipping weight, about 19 pounds.

Price



No. 42N1514
For connecting soil pipe with closet bowl.

	Shpg.	
Size,	About	
In.	Lbs.	Pric
4x12	13	\$2.35
4x14	14	2.55
4x18	17	3.00

Short Lead Bend.

No. 42N1524 Size, 4x12 inches. Shipping weight, about 7½ pounds. Price \$1.85

For Connecting Lead Pipe to Place in Soil Stack Cast Iron Soil Pipe.



No. 42N1455
Brass Ferrules.
Size, 2x3½ in.
Shipping weight,
about 1 pound.
Price....40c



| Shipping weight, about 1 pound. | Price. | 40c | In. | Lbs. | Price. | Size, About 2 | Size, Siz

for Clean Out Open-No. 42N1450

No. 42N1450
Clean Out Ferrule,
Body is cast iron, reguand iron Ferrules,
Size About,
Size About,

Shpg. Wt.,

To Trap the Waste Openings of Bathtubs, Sinks and Laundry Tubs.

Lead Drum Iron Drum Iron Drum Trap. Sink or Laundry Tub Trap.



42N2150 Made of 21/ 31/2

For Hanging Horizontal Range Boilers, Pipes, Etc.

..........

No. 42N1099 Perforated Strap Iron.
Made of %-inch by %2-inch band iron with
%3-inch perforations.
Furnished in 5 and 10-foot lengths only. Shipping weight, about 4 ounces per foot.

Price per foot.

Tinned Pipe Straps.



No. 42N5712 To he pipe in place against wall. Pipe, Inches Price, Dozen

13c 14c 16c 21c 23c 25c 29c 3/4 11/4

Price, per foot 6c

Cast Iron Floor Flanges.

A2NE Vised in pipe railings and fences as a base for fasteping pipe to face.

Pipe, Diameter Inches Over All, In. Price 120 180 Cover Hot Water and Steam Pipes to Prevent Loss of Heat. Cover Cold Water Pipes to Keep Them From Freezing.



180 200 22½0 250 300

Molded Asbestos Elbow and Tee



Pipe, Inches	Elbow Covering	Tee Covering	Pipe, Inches	Elbow Covering	Tee
1/2	150	180	2	180	210
1 3/4	150	180	21/2	210	240
11/4	150	180	31/2	270 300	30c 38c

Wool Felt Covering for Hot or Cold Water Pipes.



No. 42N2171½ Generally used for covering cold water pipes to prevent them from freezing, as it holds the heat in the water better than asbestos. Can also be used for covering hot water pipes, but should not be put around steam pipes or near a fire, as it is inflammable. Made of layers of felt with an asbestos lining on the inside where it fits around the pipe, and a canvas covering to hold the two sections firmly in place. Very easily put on. Cut lengthwise through the center. Comes in 3-foot lengths only, 1 inch thick. Sizes of covering shown below represent pipe sizes for which covering is to be used. Shipped from factory in NORTHEAST-ERN ILLINOIS. Owing to manner in which covering is packed, shipping weights vary with amount of covering ordered.

For Pipe, Price, For Pipe, Price,

Price, per Foot Sire

1 1 c 2 inches 2 1/2 inches 1 31/2 0 3 inches 1 50 1 61/2 c 4 inches For Pipe,

Above covering can be placed around pipe already installed. For asbestos paste see page 1268.

Mix It With Water and Apply Just

SHIPPING WEIGHTS — Where shipping weights are not given in some of the descriptions on this page, the weights vary with the number ordered and the method of shipment. An estimate of the shipping weights and freight, express or parcel post charges will be given upon receipt of a list of the fittings in which you are interested.

Sharpens Knives, Scissors, Tools and Skates.

Smoothes wood or metal surfaces. Pol-lshes jeweiry, silverware and brass goods. Brush attachment washes bottles, fruit jars and other glassware. Operates light machinery, such as jeweiers' and dentists' lathes.

machinery, such as jewelers' and dentists' lathes.

Hercules Water, Steam or Air Motor.

Attaches to faucet, with threaded connection, aame as arden hose. Can be operated by water of couffic consists of motor, corundum wheel, steel disc with sheet of sandpaper, dinch buffing wheel, stick of rouge for polishing and two cast follower plates, one of which is recessed to receive 1/4 or 1/4-inch buffing wheel, stick of rouge for polishing and two cast follower plates, one of which is recessed to receive 1/4 or 1/4-inch buffing wheel, stick of rouge for polishing and two cast follower plates, one of which is recessed to receive 1/4 or 1/4-inch buffing wheel, stick of rouge for one of the polishing and two cast follower plates, one of which is recessed to receive 1/4 or 1/4-inch buffing with the connect. Requires pressure of 20 pounds or more to operate motor effectively. Develops 1/4 horse-power at 100 pounds pressure. Sinpping weight, about 8 pounds.

No. 42N1393 Brush Attachment for use with above 1/4 buffing and two cast of the plate of the plat

complete with attachments, as described above.

Price
No. 42N1393 Brush Attachment for use with above
motor for washing bottles, jars and glasses.

Price
For Hose Nipple for connecting to iron pipe see No. 9N7100,
page 1398.

Sink or Closet Drain Stopped Up? One of These Will Clean It Out.



Hand Clean Out Cup.
No. 42N 1882 For removing obstructions in discharge pipe of lar attractions in the control of the control



Handy Clean Out Pump.

No. 42N1880½ For forcing stoppages and cleaning waste pipes, closets, sinks, wash bowls and bathtubs in the same manner as the hand clean out cup described at left. Made with a heavy rubber cup on the end of a long wooden handle. Shipping weight, about 1½ pounds.

Tele No. 42N1881½ Same size as above, except that cup is made of extra good quality red rubber. Shipping weight, about 1½ lbs. Price 655

Supply Connections for Lavatories and Bathtubs.

Basin Supply Pipes.

No. 42N992 Plain Wall Supplies. Brass, nickel plated, with flanges, % inch. Shipping weight, about 1½ pounds.

Price, per pair.

No. 42N993 Plain Straight Supplies, % inch, complete with flanges. Brass, nickel plated. Shipping weight, about 3 pounds,

Price, per pair.

\$1.65

No. 42N997 Plain Offset, with flanges.
Brass, nickel plated. Size, ½ inch. Shipping weight, about 3 pounds.
Price, per pair. \$2,45

Simplex Lavatory Connections.

Allow the use of %-inch iron pipe for supplies to wall or floor. To attach, remove tailpiece and nut from basin cock, slip nut over connection, insert rubber gasket and screw nut up tight. Made of brass, tinned. Prices include brass washer and rubber gasket, but not nut, as this is part of basin cock. Shipping weight, about 4 ounces.

No. 42N998 Simplex Connection to floor.
Price, per pair.
No. 42N999 Simplex Connection to wali.

Traps for Sinks and Lavatories.

Nickel Plated Traps. No. 42N974 Nickel Plated Brass P Trap.

Size, 1¼ inches, r lavatories.

Price\$2.45 Size, 1½ inches, r sinks.

Price\$2.70 Above threaded for on pipe, 50 cents

42N984
Nickel
Plated
Plated
Plated
Plates
Prass S
Trap, plain,
not vented.
Shipping wt.,
about 5 lbs.
1½ inches, for
lavatories.
Price . \$3.25
1½ inches, for
sinks.
Price . \$3.65
Above threaded
for iron pipe, 50
cents extra,

No. 42N979 S Trap, with vent S Trap, with to wall and flanges. Brass, nickel plated. Shpg. wt., about 5% pounds. Price\$3.90
1½ inches, for sinks. Price ...\$4.40
Above threaded for iron pipe, 50c extra.

Waste Connections for Bathtubs.



Connected
Bathtub Waste
and Overflow.
No. 42N1002 With slip joints and floor flange. Size, 1% inches. Brass, nickel plated. Shipping wt., about 3½ pounds.

\$2.80 Above threaded for 11/2-Inch iron pipe, 50 cents extra.



Connected Bath
Waste and
Overflow.
No. 42N 1004
With trap to floor.
Nickel plated
brass. Cast S trap
to floor with elean
out and slip joint
and flange. Size,
1½ inches. Shpg.
out 6 pounds.
\$5,40

Wrought Pipe and Pipe Fit

For carrying steam, gas or water. Made of good quality evenly rolled stock, carefully welded and free from imperfections. Black pipe and fittings are used for piping gas, for steam and hot water heating plants and for any other purpose where it is not subject to corrosion, or where rusty or discolored water is no drawback. Galvanized pipe and fittings are used for supplying water for drinking and domestic use, also for the waste piping of plumbing systems and for any other similar purpose,

Standard Wrought Steam, Gas and Water Pipe.



No. 42N57101/4 Black Pipe. No. 42N57111/4 Galvanized Pip

We carry in stock at our Chicago store ½-inch to 6-inch pipe in stock lengths as it comes from the mill, both in black and galvanized. Prices on larger sizes will be quoted on application. Prices given for each of the different sizes of pipe are for regular stock lengths of about 20 feet, as they come from the mill. One coupling is furnished with each stock length. When you specify exact lengths, threaded, we charge for the threads on both ends, as per price list shown below, and no coupling is included.

We handle only new first quality pipe as it

We handle only new first quality pipe as it mes from the mills,

Aiways	include	cost of threads wh	en pipe is ordere	d cut to exact length	hs. PRICES S	UBJECT TO MA	RKET CHANGES.			
Inside Diameter % inch 14 inch % inch % inch 14 inch 114 inches 114 inches		Shipping Weight, Per Foot, About, Pounds 14 179 176 176 176 214 224 234	Black, per Foot 4 %6 5c 5c 6 /40 8 /4c 1 2 /20 2 0 1/20	Galvanized, per Foot 7½0 7½0 8½2 1 10 2 1 340 2 60	Extra Threads, Each End 30 30 30 30 34/20 66	Inside Diameter 2 inches 3½ inches 3½ inches 4½ inches 5 inches 6 inches 6 inches	Shipping Weight, per Foot, About, Pounds 3% 5% 7½ 9 10% 12½ 14½ 18% Hangers, Straps and C	Black, per Foot \$0.273/4 43//2 56/2 .73//4 .87 .02 1.18 1.53 overings, see page	Galvánízed, per Foot \$0.34 1/4 .54 3/4 .90 .07 .25 .44 .87	Extra Threads, Each End 6c 6c 8½c 12e 14½c 21¾c 32½c 42c
		1								



Nipples. State length wanted.

All nipples 6 inches ng or over will be harged at price per foot tiren pipe with cost of titing threads added. or weights see weights pipe.

	42N5763	42N5765
Pipe, In.	Black	Black
In.	Short	Long
1/4 3/8 1/2 3/4	21/20	31/40
3/8	- 30	31/20
3/2	3/40	51/10
1 74	41/20	73/40
11/4	53/40	90
11/2	63/40	110
2	90	140
272	180	290
316	410	580
1 1¼ 1½ 2 2½ 3 3½ 4	Short 2½0 30 3½0 3½0 4½0 5¾0 6¾0 90 180 240 460	Long 3½0 40 5½0 7¾0 110 140 29c 330 580
	42N5764	42N5766
Pipe,	45140104	42N3/00
Pipe, In.	45140104	Galv.
Pipe, In.	45140104	Galv.
Pipe, In.	45140104	Galv.
Pipe, In. 1/4 3/8	45140104	Galv.
Pipe, In.	45140104	Galv.
Pipe, In. 14 % 1/2 1	45140104	Galv.
Pipe, In. 14 % 14 114 114	45140104	Galv.
Pipe, In. 14 % 14 114 114 2	45140104	Galv.
Pipe, In. 14 % 14 14 114 2 2 142	45140104	Galv.
Pipe, In. 14 % 14 14 114 2 2 14 3 3 14	45140104	Galv.
Pipe, In. 4 % 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	42N5764 Galv. Short: 3'/40 3'/40 4'/20 90 130 140 290 370 780	42N3/00

Bushings.

Red	luce one s	ize-large		
ena g	given here.			
	42N5752	42N5753		
Pipe,	Black	Galv.		
In.	Each	Each		
3/8	31/20	73/40		
1/2	31/20	80		
3/4	40	81/20		
11/	50	90		
11/4	80	100		
2 72	100	210		



Oz		alleable Iron bows.
Pipe, In.	2N5724 Black Each \$0.04 .05 1/4	42N5725 Galv. Each \$0.051/4 .07
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.10 .20 .25 .40 .66	.10 .169 .37 .601
4	1.96	3.03

Reducing Elbows.

Furnished under the same numbers at same prices as above. Price is figured by size of big end. State size of tappings wanted at both openings.



given here.

42N5744
42N5745
Pipe, Black Galvanized
In. Each Each
43.005½
54.005½
54.005½ Each \$0.051/4 .051/2 .06 .08 .12 1 1/2 1 1/2 21/2



	P	lugs.
ne.	42N5748 Black Price.	42N5749 Galv. Price.
1.	Tach	Each 40 4½0 4¾0
	3 ¹ / ₄₀ 4 ¹ / ₄₀ 4 ¹ / ₂₀ 4 ³ / ₄₀ 50	60 71/00
4 2	70	80 1 10 1 50
4	150	29°

0	31/2	32° 36°	680
	0		egree ows.
5	1		42N5729 Galv.
4	Pipe, In.	Price,	Price, Each
	5/8 1/2	.051/4	06/2
1	1 11/4	Fach .04½ .09 .15 .23 .33 .51	0.06% .06% .095 .233 .458 .5762
ı	11/4 11/2 2 21/2 3 31/4	.33	.45
	314	.74	1.12







Malleable Iron Unions.

Unions.
Used to join together we pieces of pipe.

42N5740
Black Galvanized
Price, Price, Each
14 20
15 15 22
14 22 32
14 29 45
16 22 32
14 29 45
16 55
16 55



abou	t 4 ou		Workitt,
Size,		Size,	
In.	Price	In.	Price
3/4	10	11/4	1 3/40
79	1/40	1 1/2	2/40
32	13/-0	21/2	2940
1 74	3/40	3 72	41/20
-	740	-	4/20



*0.06 .08 .12 .14 .18 .37

Reducing Tees. Furnished under the bove numbers at the ame prices. Figure rices according to sine Tub Tee.

No. 42N5734 Galvanized. Size, ½ inch.
Side outlet offset to allow
raising up and dropping
down to bibb connection.
Shipping weight, about 8
ounces. Price.....310



Cast Iron Flange Unions.

No. 42N5782
Easily and quickly connected or disconnected. Leave opening through union same size as in-

Pipe, In. 2 2½ 3 3½ 4 Pipe, Pipe, Pipe, In. Price In. Pric

Pipe, In. 2 2½ 3½ 4 Price 13/40 13/40 21/40 21/40 23/40 In. 1/2 8/4



Cold Drawn Steel Unions with brass insert. No gasket or washer required.

No. 42N5739 Steel Unions. Pipe, In. Price \$0.61 .91 1.22 1.52

42N2806 Gaivanized Long Screw, with coupling and lock-nut faced. For drainage piping. Pipe, Inches Price \$1.09 1.42

Locknuts. No. 42N5755 Black. Pipe, In. 11/4 11/2 21/2 3



Wrought Iron Couplings.

Pipe, In. 1/4 8/8 1/2 8/4 \$0.06 .07 .08 .10 .20 .26 .31 .61 .82 1 1¼ 1½ 21/2 31/2



Malleable Crosses.

Malleable Iron Return Bends, Open Patterns.



No. 42N5769 Black.
Pipe, inches. ½ % 1 1½
Price, each... 120 20c 31c 35o
Pipe, inches. 1½ 2 2% 3
Price, each.47c 63c \$1.10 \$1.40

Cast Iron Fittings.



42N2095 Cast iron 90-Degree El-bows.

Price Each \$0.09 .12 .16 .21 1 .31 1



\$0.10





Shpg. Wt., Abt., Lbs. \$0.13 .13 11/4 .25 11/2 .35 2 .61 21/2 .91 3 1.23 31/2 1.44 4

Drainage Fittings. When pipe is screwed into a drainage fitting it butts against a shoulder, leaving a straight passage through pipe and fitting without pockets or ridges to catch waste matter. These fittings especially suitable in waste pipe lines and vacuum cleaning systems.









Pipe size, 1½ in. Price280



Pipe Size 2 111. 2x1½ in



fitting, measure the diameter across the tapping, or threads you wish to fit, and then refer to the table given below for the corresponding pipe size. Example: An oil or grease cup is desired to fit a tapping in a bearing or fitting that measures %e inch in diameter. By referring to the table below we find that a pipe thread %e inch in diameter is for %-inch pipe; it will therefore be necessary to order an oil cup for %-inch pipe connection. See illustration.

Shipping Weights

The shipping weight of pipe fittings varies, according to the number ordered and the method of shipment. An estimate of the shipping weights and freight, express or parcel post charges will be furnished, if desired, upon receipt of a list of the fittings in which you are interested.

No. 42N2105 Cast Tees. Size of large end tappings wanted. Cast Iron Reducing



Size, About, Price, Int. Lbs. Each \$0.84 \$10\frac{1}{2}

Graphite Pipe Cement.

No. 42N62O3 Used in radiator joints, gas and water pipes. to make tight joints and keep threads from rusting.

Price, 1-pound can...\$0.26½

Price, 5-pound can...\$1.27

For White Lead, see Index.

For Furnace Cement, see page 1268.



Stops, Cocks, Valves, Gauges, Whistles

Before Ordering Fittings Read About Sizes at Bottom of Page

1606.

For Cleaning and Polishing Machinery of All Kinds.

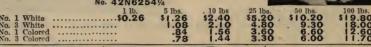
Cotton Waste. Made by fluffing or pulling apart the threads of otton cloth and the waste material from cotton mills.

No. I waste, either white or colored, is made from new cuttings nd waste threads that accumulate when weaving cloth in the coton mills. It is very fluffy, more absorbent and stronger than the

m mills. It is very fluffy, more absorbent and stronger than the wer grades.

No. 3 waste is made from reclaimed cotton goods and mill sweepigs with a sufficient quantity of long threads to hold it together roperly. It is used for packing and cleaning, but is not as bsorbent or fluffy as the No. 1 grade.









No. 42N5870

Lever Handle Stop. Rough brass, threaded for iron pipe. Pipe, in., 1/2 3/4

Shpg. wt., abt., lbs.11/4 11/2 21/2 abt., lbs. 2 2½ 3½ abt., lbs.1½ 1½ 2½ Price59c 85c \$1.52



Shpg. wt., abt., lbs. 11/4 11/2 abit, lbs. 1½ 1½ 2½
Price 64c 92c \$1.58
Pipe, in..... 1½ 1½
Shipping wt.,
about, lbs. 3½ 4½
Price\$2.59 \$4.24



No. 42N1410 Lever Handle Stop and Waste for Iron Pipe.

Pipe, in.. 1/2\$1.32 \$1.76



Cocks. Combination tee and lever handle, one pioce, revers-tible, Made of high quality brass, with iron handle, Excellent for high pressure work.

No. 42N5873 Heroules Stop Cooks. For Shog. Pipe, Wt... In. Abt., bs. Price 4 1 \$0.79 34 114 1.23 1 234 2.13 114 334 3.70



No. 42N5874

T Handle Stop. Rough brass, threaded for brass, iron pipe.

Price Pipe, i Shpg. abt., lb Price Pipe, in. 1/2 3/4 Shpg. wt., abt., lbs.14 11/2 21/4 3

..60c 86c \$1.51 \$2.59



T Handle Stop and Waste. Rough brass, threaded for iron pipe.

\$0.63 .92 1.58











Before Ordering Fittings Read About Sizes at Bottom of

Page 1606.

Brass Gate

Valve.

42N5788



Gauge Cock.

No. 42N5018 Solid brass, wood wheel. Complete with improved stuffing box. l'olished.



No. 42N5826 pipe, inch... 1/4 g. wt., abt., lb. 5/8 e5/0 pipe, inch... ½ ¾
... wt., abt., lbs. % 1¼
... 700 880





No. 42N5828 No. 42N5828
For pipe, inch. 14
Slips, wt., abt., lb. 14
For pipe, inch. 14
For pipe, inch. 14
For pipe, inch. 15
For pipe, inch. 15
For pipe, in. 1
Ships, wt., abt., lbs. 214
Frice 1525
For pipe, in. 12
Ships, wt., abt., lbs. 414
Frice 152.44
Sign 37
For pipe, in. 12
Ships, wt., abt., lbs. 414
Frice 152.44
Sign 37
For pipe, in. 12
For pipe, in. 14
Frice 152.44
Sign 37
For pipe, in. 14
Frice 152.44
Sign 37
For pipe, in. 14
Frice 152.44
Sign 37
For pipe, in. 14
Frice 152.44
Frice 152.44

Globe Valve.





No. 42N5852



Tested to 100 pounds pressure. Used either for steam or water where a full opening (same size of pipe) is required. Bearing of wedge is central, acting uniformly on all parts of disc.

of disc.
Size, inch... ½ ¾ 1
Shps. wt.,
abt., lbs... 1¼ 1¾ 2½
Price\$1.21 \$1.51 \$2.07
Size, inches. 1¼ 1½ 2 Sipg. wt., abt., lbs. 4 5 7½
Price\$2.73 \$3.69 \$5.39



No. 42N6390 Iron body with brass mounting. Threaded for iron pipe. With cast iron weight.

2.81 3.47 4.07 5.45 9.24 12.05

No. 42N5858



42N5838 Price \$1.33 1.45 1.94 2.42 3.14 4.51



Glass Tubes for Water Gauge. Glass Tubes for Water Gauge.
No. 42N6406 For pressure of 150 pounds or less. Lengths other than quoted take prices of next longer tubes of same diameter. Less than six glasses not sold. Shpg. wt., six glasses, abt. 2½ lbs. Lth., For 6 Per 1. ½ In. Doz. ½ In. Doz. 3½ In. 25 I. 30 8.5 I. 35 I. 34 II. 30 8.5 I. 35 II. 34 II. 35 III. 35 I



No. 42N6331 Brass water Safety Valves. Used on pneumatic tanks, spray pumps, pipe lines, etc., to relieve an excess water pressure, also on steam engine cylinders. Furnished set at 50 or 100 pounds. State which is wanted.

No. 42N6021



No. 42N6330 No. 42N6330
Brass. Full relieving capacity. Connect valve to top of boiler when possible. When pipe connections are used have them full diameter of valve or larger. In ordering state horse-power of boiler and highest working pressure.

Shpg. Wt About Horse Lbs. \$ 4.40 3/4 6.60



Before Ordering Fittings Read About Sizes at Bottom of Page 1606.





No. 42N6351 able Lever Whistle Made of brass. Size, Shpg. Wt., In. Abt., Lbs.

and Grease Cups, Lubricators and Governors

Powdered Lubricating Graphite.

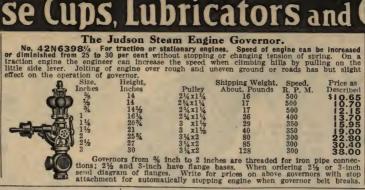


No. 42N6202

Guaranteed pure. Mixed with lubricating and cylinder oils to increase their lubricating value.

1-pound	can\$0	.30
5-pound	can 1	.40
Prices	on larger quantities quoted on	ap-

plication



Automatic Grease Cup.



No. 42N5938 For stationary or movable bear-ings. Pressure of spring on the grease forces it in-to the bearing. Has valve in outlet for regulating flow of grease. Polished brass.

_				
	Pipe Size,	Capacity (Grease),	Shpg. Wt.	
No.	In.	Oz.	Lbs.	Price
0	1/8	1/3	1/4	\$0.58
0	1/4	1	- 1/6	7 .79
i	1/4	11/2	3/4	.88
2	8/2	3	11/4	1.26
3	1/6	6	2	1.74
4	1/2	10	21/4	2.42

Brass Oil Cup.



All oil cups, lubricators and injectors are threaded for wrought pipe. For table of pipe sizes see bottom of page 1606.

............... No. 42N5926 With screw top.

	Gasol	ine E	noine	
7	2 in.	½ in.	14	790
0 2 3 4 7	11/2 in.	% in.		410
3	11/4 in.	1/4 in.	6 8	270
2	1 in.	1/4 in.	4	190
0	% in.	1/8 in.	3	150
No.	Body	Size A	bt., Oz.	Price
	Diam.	Pipe	Wt.,	10.00
			outhe.	

Lubricator.



No. 42N5944 With Brass Ball Check. For any make of stationary gasoline engine. Easy to take apart and clean. Has improved snap lev-er to start and stop feed. Made of brass, polished.

	-		pg. W	
Size	, Capac-	Pipe A		
In.	ity, Oz.	Connect'n	Lbs.	Price
11/2	11/2	1/4 in.	3/4	\$0.64
2	21/2	% in.	11/4	.70
3	4	3/8 in.	1%	.82
4	5	% in.	11/2	.93
5	10	½ in.	21/4	1.26
6	Pint	½ in.	31/4	1.70

Roller Tube Expander.



No. 42N6185 For expanding the ends of boller tubes. Made of steel with hardened rollers. Guaranteed satisfactory. Always give substander is to be used in.

Shpg.			Shpg.	
Wt.			Wt.,	
Size, Abt		Size,	Abt.,	
In. Lbs.	Price	In.	Lbs.	Price
1 21/4 \$	3.35 3.40 3.45 3.50 3.55	21/2	8 \$	4.90
11/4 3	3.40	3	11	6.30
11/2 31/4	3.45	31/2	17	8.05
1% 5	3.50	4		0.50
2 51/2	3.55	5		7.50
21/4 8	4.20	6		1.00

Sectional Spring Tube



No. 42N6 183 Used largely for expanding the tubes of portable and traction boilers. A good strong expander, not easily gotten out of order. Made of high grade tool steel for %-inch plate. In ordering give

outside	diameter	of tubes.	
Size,	Expands	Shpg. Wt.	Price.
In.	From, In.	Abt., Lbs.	Each
1%	11/2 to 13/	31/2	\$4.40
21/4	128/32 to 2	33/4	4.80
21/4	11% to 21	4 41/4	5.20
21/2	25 to 21		6.00
3	25% to 3	81/	8.80

Beading or Calking Tool.



No. 42N6187 For turning over edges of boller tubes after they have been expanded. High quality tempered tool steel. Shipping weight, about 1½ pounds.

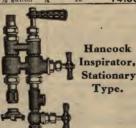
Plain Glass Oil Cup.

No.	42N5	943	Po	lished	brass
with	needle 1	alve 1	or r	egulati	ng flow
of oil		a		ipping	
	Pipe	Capa		Weight	
No.	Size	ity		bt., Oz	
00	1/8 in.		OZ.	4	\$0.27
1	3/4 in.		OZ.	7	.34
1½ 2 3 4 5	¼ in.	11/2		9	.43
2	% in.	21/2			.51
3	% in.		oz.	13	.64
4	% in.		oz.	17	.93
5	⅓ in.	10	oz.	27	1.26
Double Connection Sidht					

Feed Lubricator.

No. 42N6251 For stationary engines, pumps, lifts, etc., where upper opening in pipe can be placed 18 to 24 inches above lower. A piece of pipe is run from upper connection to lubricator and acts as a condensing chamber. In addition to sight feed glass has also sight glass for indicating height of oil in reservoir. Made of brass with wood handle. Instructions for operating sent with each lubricator.

lubricato	Pipe Con- nection,	Shpg.	
Capacity	Inch	Abt., Lbs.	Price
½ pint	1/2	61/4	\$ 5.05
1 pint 1½ pints	1/2	814	7.20 8.25
1 quart		9 1/2	9.45
½ gallo	n %	15	14.00



No. 42N6300 For stationary, marine and portable bollers. Made of brass with ground joint unions and brass strainer. Works with low or high steam pressure on lifts up to 25 feet. Water can be raised about 2½ feet for each pound of steam pressure. With 45 pounds steam pressure water can be lifted 25 feet and elevated 12½ feet, a total elevation of 187½ feet. Horse-power of boller is for ordinary type.

4.80 5.20 6.00 8.80	18 10	P	ipe ize	нгу	type.		
8.80 ool.	No. 1	am tm	uct'n and Delivery	rflow	Horse-	Ship- ping Wt.,	
g over	Size No.	% Steam	02	RAY Ove	Power, Boiler 4 to 6 6 to 8	About, Lbs.	Price \$ 9.70 10.90
tem- veight,	10 12½ 15 17½	18/21/23/s	3/8 1/2 1/2 3/4 1	Merky Work Overflow	8 to 15 15 to 30 30 to 40 40 to 60	51/4 51/2 53/4 9	12.10 15.10 18.15 24.20

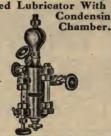


No. 42N5952 With needle valve, sight feed and snap lever for stopping the flow of oil. Not affected by the vibration of machinery. Made of

Price \$0.53 .556 .65 .79 .85 1.48

Double Connection Sight Feed Lubricator With

Condensing



No. 42N6256 For stationary, portable or traction engines, pumps, sto, where traction engines, pumps, sto, where the proced in steam pine, but where upper connection cannot be more than 6 or 8 inches above lower. Will operate in extreme cold temperature as oil reservoir has heating tube. Fitted with sight feed glass and sight glass for indicating height of oil in reservoir. Made of brass with wood handle. Instructions for operating sent with each lubricator.

with each	h lubricato		100
	1/3 Pt.	½ Pt.	1 Pt.
For	Under	10 to 12	12 to 18
	10 Inches		
Pipe	1/2	1/2	1/2
Shpg.wt.			011
abt., lbs.	61/4	7	91/2
Price	\$5.40	\$5.90	\$7.80
Size	1½ Pt.	1 Qt.	1/2 Gal.
For		24 to 30	30 Inches
Cylinder	Inches	Inches	and Over
Pipe	1/2	1/2	3/4
Shpg.wt.	991/	10	921/

\$8.70 \$10.50 \$14.90 The H-D Ejector or Jet



Pipetor or Jet Pump.

No. 42N6312 For lifting and forcing water and other liquids from one level to another in mines, pits or wells. Will lift 24 feet. When desired to raise liquid to greater distance, place ejector near liquid. With a steam pressure of 65 pounds ejector will elevate water 50 to 66 feet. Has ground joint union. Nos. 1 to 5 made of brass. Nos. 6 and 7

nade	of i	ron.	. '				
		Pi			Capac per Ho		
	Cor	ne	ction	Bairba.	With	50	
Size		-		Wt.,	Pound	ds e	5
No.	Stea	m	Deli Deli	Lbs.	Presst	ire, ii	
1	. 3	18	1/2	11/4	250	\$ 2.65	
1234567	3	23	1 %	31/4	500 960	3.30 4.95	
4	1	*	11/4	4 3/4	1,300	6.67	
5	11	4	11/2	7 111/2	2,000	8.35	
7	11	1/2	21/2	20	4,000 8,000	11.55	
-		-	-	The same of the same of			

Cast Brass Grease Cup.



No. 42N5937 Universally known and used for lubricating all

inds	of bear			
	Pipe	Capacity	Shpg.	Wt
	Size,	(Grease)	. Abou	tr ·
To.	In.	Oz.	Oz.	Price
0	1/8	1/2	3	\$0.23
0	3/4	2/3	4	.32
1	1/4	1	5	.41
2	3/8	2	9	.54
3	1/2	31/2	12	.76
1	1/2	5	22	1.02

Acme Single Connection Sight Feed Lubricator.



No. 42N6255. For lubricating the valve chests and cylinders of traction, portable and stationary steam engines, steam pumps and lifts, where but one opening is provided in the steam pipe for connecting the lubricator. Especially recommended for traction and portable engines as it has sight feed and will work in hot or freezing temperatures. Made of brass throughout with wood handle. Instructions for operating sent with each lubricator.

~	Pipe S	hpg. Wt	,
Size	Connect'n A	bt., Lbs.	Price
1/4 pint	% inch	7 . 5	4.30
1/3 pint	% inch	71/2	4.80
½ pint	½ inch	71/2	5.50
1 pint	½ inch	7 3/4	6.40
1 quart	½ inch	10	8.50

Automatic Injectors.



No. 42N6296 For feeding water into traction engines, portable and stationary power boilers. Horse-power of boiler is for ordinary type, Made of brass with ground joint unions and brass strainer. Must pass the following factory test: Start, 20 pounds steam on 4-foot lift; work to 150 pounds steam and 4-foot lift; lift water 18 to 20 feet on 60 to 80 pounds steam pressure; handle hot water 120 to 125 degrees at 60 to 80 pounds steam and 85 to 100 degrees at 125 pounds pressure. Our injectors deliver a maximum quantity of water, while the capacity on be cut down about one-half by simply throttling water supply valve.

	Al Pi		Ship- ping	
		ec- Horse-	Wt.,	
Size	tion		About,	-
No.	Incl	h Boiler	Lbs.	Price
20	3/8	2 to 6	3 \$	6.60
30	3/8	4 to 8	3 3/2	7.05
35	1/2	8 to 16	4	7.90
40	1/2	16 to 23	5 5	8.80
50	3/4	23 to 30	5	11.00
60	3/4	30 to 45	5	3.20
70	1	45 to 65	9	7.60
80	1	65 to 80	9	9.80

Engine Lubricator.

3/4

Flue Brushes for Power and House Heating Boilers.

Hercules Self Adjusting Round Flue Cleaner.



No. 42N6188 A high quality flue cleaner which cuts or planes the soot from the inside surfaces of round flues. Especially recommended for power boilers, as it is heavily constructed and will stand rough handling and continued hard usage. The spiral knives are automatically kept tight against the inside of the flue and remove the soot with less effort than when using a brush. Tapped to fit on a handle made of 4-inch pipe or with a standard 4-inch pipe thread except size 3-inch, which has a %-inch pipe thread. Size, Shpg. Wt., Inches Abt., Lbs.

1% 14 14 15 1.05



For Flat or Square Flue Surfaces.

No. 42N6196 Size, 4½x6 inches. Tapped for ¼-inch pipe connection. Shipping weight, about 1 pound. Price.....550

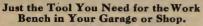
For Oval or Round Flue Surfaces.

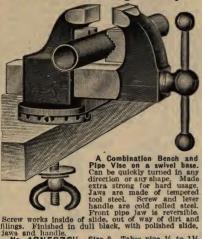




No. 42N6 190 Made of flat spring steel, with wrought iron stem. Always give outside diameter of tube brush is to be used in. Outside diam. Of tube, in.1% 2 2½ ½ 3 Shipping wt., about, oz. 6 7 8 9 11 Price21e 24e 27e 30e 36e

Tools That Every Blacksmith, Automobile Owner,





ws and handle.

No. 42N59761/4 Size 0. Takes pipe 1/4 to 11/2

ches. Shipping weight, about 20 pounds.

Quick Action Pipe Vise.





Drills Holes in Iron, Steel, Marble or Wood. Monarch Drill Ratchet.



No. 42N6076
Has feed screw
and compact
head for use in
close places.
Withstands hard
steel throughout, By attaching No. 42N6077 or No.
drill may be used.

10-in. Shpg. wt., 31/8 lbs..\$4.25 12-in. Shpg. wt., 51/2 lbs.. 4.75 15-in. Shpg. wt., 7 lbs.. 5.50

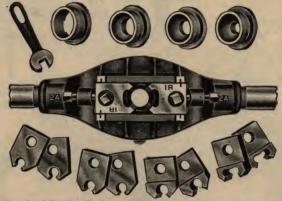
Twist Drills for Above Ratchet.

Twist Drills for Above Ratchet.

No. 42N6088 Tool Steel Twist
shipping weight, about 10 ounces.
Diam., In.
Price
Strip S

Here Is a Handy Pipe Threading Tool. Threads three different sizes of pipe, 36, 2 and 34-inch, without changing a die or guide. Any Armstrong pattern No. 2 die and guide can be used in it. Dies are adjustable to cut deep or shallow threads, as desired, and can easily be sharpened on a grindstone when dull. Stock is malleable iron. Dies are tempered tool steel. Hercules 3 in I pipe stock with three dies and guides to thread %, ½ and ¾-inch pipe. Price\$8.00

You Can Adjust and Resharpen the Dies in These Stocks.



clies, cutting %, %, 1 and 1% inches, right hand. Furnished with handles, dies and guides, complete. Shipping weight, about 23 pounds.

Price, per set.

No. 42N6020 Hercules No. 2% Stock and Dies, furnished with dies to thread from % to 1%-inch pipe.

Price, per set.

\$10.30
Extra Pipe Dies for either of above numbers, each size, two pieces 1.75
Extra Guides. Price, each size, each size, two pieces 1.75
Extra Guides. Price, each size, inches, right hand. Shipping weight, about 29 pounds. Price, per set.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces. Price.

\$10.30
Extra Pipe Dies, each size, two pieces.

\$10.30
Extra Pipe Dies, each siz



Saunders Pattern Pipe Cutter. Wheel cuts groove in pipe and the two rollers roll edges down smooth. Made of malleable iron with tool steel cutting wheel.

No. 42N5996 No. 1
Cuts pipe from % to 1 in.
Shipping weight, about, pounds 5
Price \$1.35
Extra wheels, each \$1.172 No. 3 2 to 3 in. 14½ \$5.15 .28



Three-Wheel Pipe Cutter. Cuts three times as fast as a single wheel cutter. Made of malleable iron with three tool steel cutting wheels.

A Quick and Easy Pipe Threader.



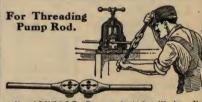
An easy to use, solid die, pipe threading stock for those desiring to do their own pipe fitting, as well as for the plumber or steamfitter. The various dies and guides can be quickly interchanged, as they are in one piece and need no adjusting. Stocks are made of malleable fron cutters in dies are of tempered tool steel. Guaranteed to cut a clean, sharp thread. Noe. 2 and 3 furnished with leader screw, as shown in illustration. Leader screws not furnished with other sizes.

No. 42N6001¼ No. 1. Threads pipe ¼, ½, ½, 34 and 1 inch. Dimensions of dies, 2½x%. Snipping weight, about 13½ pounds.
Price, complete with dies and guides. \$5.70
Extra dies, each. 96
Extra guides, each. 18 No. 42N6602½ No. 1½. Threads pipe ¾, 1 and 1¼ inches. Dimensions of dies, 3x¾. Shipping weight, about 14 pounds.

Price, complete with dies and guides. ...\$5.15

Extra dies, each 20

For taps see No. 42N6060 on this page. They are not included at above prices.



Cuts the Burr Out of Pipe or Tubing. Fits Common Bit Brace.



No. 42N6064 For % to 1%-inch pipe. Shipping weight, about 8 ounces. Price......\$1.00 No. 42N6065 For 1 to 2-inch pipe. Shipping weight, about 3 pounds. Price......\$1.90

Pipe Thread Reamers and Taps.



360 400 480 590 79c es 1 1¼ 1½ 2 abt., lbs. 1 1½ 2¾ 4¼\$1.12 \$1.35 \$1.65 \$2.25

Farmer, Plumber and Steamfitter Should Have

Pipe



Length, open, inches 6 8 10 14 18 24 36 48 Takes pipe, inches. ½ to ½ ½ to ¾ ½ to 1 ½ to 1½ ½ to 2 ½ to 2½ ½ to 3½ 1 to 5 Shpg. wt., abt., lbs. ½ 3 3 1½ 3 3 1½ 3 3 15 60

Wrench

Genuine Trimo Pipe Wrench.

A very satisfactory, widely used pipe wrench. Grips the pipe but does not crush it, readily releasing its hold. Made of steel with hardened jaws. Movable jaw and nut are made with round top and bottom thread. Guaranteed not to strip or burr. Parts can be renewed at a small expense.

A Pipe and Monkey Wrench All in One

Genuine Bemis & Call's Nut and Pipe Wrench. With wrought bar and casehardened jaws and adjusting nut. Parts easily replaced; furnished with long adjusting nut.

No. 42N6164 10-1nch, takes pipe ½ to 1 inch in diameter. Shipping weight, about 2¾ pounds. Price

12-inch, takes pipe ½ to 1¾ inches in diameter. Shipping weight, about 5½ pounds. Price

15-inch, takes pipe ½ to 2¼ inches in diameter. Shipping weight, about 5½ pounds. Price

51.85

15-inch, takes pipe ½ to 2¼ inches in diameter. Shipping weight, about 5½ pounds. Price

52.60

Genuine Bemis & Call's Short Nut Wrench.

No. 42N6165 Same as No. 42N6164 at left, except furnished with short adjusting nut instead of long.

ength, 10 inches. Shipping wt., about 21/2 lbs. Price....\$1.50 Length, 12 lnches. Shipping wt., about 3% lbs. Price... 1.70 Length, 15 lnches. Shipping wt., about 5 lbs. Price... 2.40

Automatic Pipe Wrench.

No. 42N6150 Grips pipe without adjustment. Made of drop forged steel with polished head.

Length, in.. 10 Length, inc. 17
Takes pipe, inches ... 1/4 to 11/2 % to 2 ½ to 2½
Shipping wt., abt., 10s. ... 1½
2½
4½
11
Price80e \$1.08 \$1.60 \$2.40



No. 42N61221/4 Solid steel pipe

Takes Pipe Shpg. Wt. From, In., Abt., Lbs. 1/8 to 3/4 31/4 Number rom, In.,

1/8 to 3/4

1/8 to 1

1/8 to 1

1/4 to 2

1/4 to 3 11/2

They Hold Tight and Withstand the Strain.



Size No. 1. Will hold pipe 1/4 to 2 inches; length, 20 inches. Shipping weight, about 5 pounds. Price. \$2.65 Size No. 2. Will hold pipe ¼ to 3 inches; length, 27 inches. Shipping weight, about 5 pounds. Price. \$3.85 Size No. 3. Will hold pipe ¾ to 6 inches; length, 37 inches. Shipping weight, about 24 pounds. Price. \$5.40

Hercules Chain Wrench.

Has a double set of Jaws with teeth slanted so as to allow it to take an immediate hold on pipe, and also force Jaws against handle instead of spreading them. All parts interchangeable, Made of wrought steel.

No. 42N6 | 681/4



The Tool for Home, Shop or Garage.



Handy Adjustable Wrenches. y Adjustable Wrenches.

No. 42N6146 For gripping plpe, bofts, rods, etc. Well made with Jaws and nut of steel.

Length, 6 inches. Takes pipe % to % inch. Shipping wt., about 8 oz. Price.

Length, 8 inches.

Takes pipe % to % inches. Shipping wt., about 2 los. 1 inches. Takes pipe % to 1 inch. Shipping wt., about 2 los. 1 inch. Shipping wt., about 2 los. 1 inches. Takes pine % to 1 inch. Shipping wt., about 2 los. 1 inches. Takes pine % to 1 inches. Shipping wt., about 2 los. 1 inches. Shipping wt., about 2 los. 1 inches. Shipping wt., as above, except has

about 31/2 about 3½ lbs. Price. 31.30
Same as above, except has
jaws at both ends. One for
bolts or plpe, the other for
squares or hexagons. Takes
plpe ½ to ½ lnch. Shipping
weight, about 8 ounces.
No. 42N6144 Price. 94c

Combination Gasoline Furnace.

No. 42N1771

Use a Blow Torch!

Use a Blow Torch!

Use a Blast Furnace!

Have you soldering copper to heat? Have you old paint on wood or metal to burn off? Do you have frozen water pipes in the Winter to thaw out? Use a Blow Torch.

Have you solder or lead to melt? Have you more than one soldering copper to heat at the same time? Do you ever go camping? Use a Blast Furnace and Camp Stove.



With soldering copper attachment. Heavily constructed. Neat, compact design. No pump. Pressure created by gasoline vaporizing. Gives 1,800 degrees heat under proper conditions.



No. 42N1776 Price

Melting Pot. o fit No. 42Ni7671/4 and 42Ni7681/4 Furnaces. Ship-weight, about 4 pounds. No. 42N1769 Price. . 400



Combination Gasoline Furnace.

Heats soldering irons and melts lead or solder at the same time. Compact. Reliable. Has signed for outdoor or indoor use, with swivel joint so it can be turned to horizontal or vertical position. Hood can be removed by loosening one thumb screw, and tank with burner used separately. Reservoir holds 3 quarts of gasoline and is made of pressed steel with welded seam and connection. Fitted with brass filler plug and improved brass pump with needle stop valve. Hood has cover, soldering iron rest and wind shield. Height, 12 in.; diameter, 8½ in. Shpg. wt., abt. 11 lbs.

No. 42N1767½ Price......\$8.75

No. 42N17674 Price.....\$8.75

Blast Gasoline Plumbers' Furnace and Camp Stove.

Easy to generate. Compact, well made and reliable. Lift off top and furnace makes furnace makes a very satisfactory c amp pstove for cooking, frying, etc. Produces a hot blue flame, Made of steel. Reservoir has welded seams. Shipping welght, about 12 pounds.





Combination Tank Heater, Laundry and Cook Stove Hot Water Day and Night

Powerful and Economical-Burns Any Kind of Fuel.

Can be used in kitchen or basement in connection with hot water tank or range boiler. Fire pot through which water circulates is made hollow. This construction allows the live coals to come in direct contact with the entire inner surface and heats the water very quickly. Capacity, 30 gallons per hour. Made very heavy and substantial to withstand hard usage and give the very best service and plenty of hot water.

Heats all the water required in the home, keeps the kitchen warm and comfortable and top can be used for cooking or laundry purposes. Range boller is not included in price. Range boilers are illustrated and priced on page 1604. Stove must be connected to boiler before starting fire.

As a laundry stove it is ideal. Has four No. 8 lids. Top is large enough to hold a big wash boiler and cooking utensils or sadirons at the same time, or a big steel or galvanized iron tub. Entire top is evenly heated.

Stove is solid cast iron from top to bottom. Has draw center grate and large ash pan. Blackened and polished, ready to set up and use. Securely crated for shipment.

We guarantee safe delivery and ship at once from CHICAGO, ILL., or NEWARK, OHIO, the one nearer you. When shipped from CHICAGO, stove cannot be shipped from our store with other goods.



This illustration shows the WIZARD as water heater, with pipe connection from back of stove to tank or range boiler. Plenty of hot water at all hours,

Order by Number	Price	Size of Lids	Inside Diameter, of Fire Pot, Inches	Cooking Top, Inches	Height to Cooking Top, Inches	Size Water Pipe, Inch	Size Smoke Pipe, Inches	Shipping Weight, About, Pounds
22N585	\$14.25	No. 8	91/2	20%x21½	26 1/4	3/4	6	175

Has Cast Iron Jacket and Copper Coil.

No. 42N1086'/4
Cast Iron Jacket Gas Water Heater. Will heat a 30-gallon range boller in about 40 minutes. Has cast iron burner and single copper coil. Burner fitted with brass valve threaded for ½-inch gas pipe. Coll is double cone shape with cast heat deflector at top. It is made of copper tubing fitted with brass connections for ¾-inch pipe. Cast fron jacket is in two parts, one-half acting as door. Shipping weight, about 30 pounds.

Price ...\$6.15

Price\$6.15 Read top of page 21.

Heats a 30-Gallon Range Boiler in 45 Minutes.

No. 42N10801/4 Perfection Gas Water Heater. Has asbestos lined Russia iron jacklined Russia iron jacket, brass unions for 34inch i ron water pipe
and seamless copper
coil. Coil shaped so
greatest amount of surface is directly exposed
to flame and conical deflector forces heat
around coil instead of
rising through center.
Costs little to operate. Artificial or natural
gas. Valve is tapped for %-inch gas pipe.
Shipping weight, about 20 pounds.

Price \$5.20

Read top of page 21.

Hercules Kerosene Water Heater.

Price....\$17.50
Read top of page 21.

Double Copper Coil Gas Water Heater.
No. 42N | 082 | 24 Furnishes abundance of hot water for bath, kitchen and laundry when connected to a 30, 40 or 52-gallon range boiler in 25 minutes. Very satisfactory for heating; 18 feet of 4-inch copper tubing in two coils, as illustrated. Cast iron Jacket Burmer cast with drilled outlets and fitted with gas valve and air mixer. Coll inlet and outlet for 3/-inch water pipe. Gas valve tapped for ½-inch pipe. Maximum gas consumption, 50 to 60 feet per hour. Shipping weight, about 42 pounds. Price. \$8.20 Read top of page 21.

WALES.

Has a Cast Iron Coil.

Gas. Kerosene and Gasoline

Water Heaters

Top of page 21 shows proper connection of these heaters with range boilers. Connec heater to chimney with 3 or 4-in. stovepipe

hrie Gas Water Heater.

Heats a 30-gallon range boller in
about 45 minutes.
Furnished with a
steel jacket in one
piece with absetos
and galvanized
iron lining or a
cast jacket in two
halves, one acting
as door. Water is
heated by passing
through coil consisting of cast fron
discs exposed to
gas flame. Tapped
for ½-lnch ir o n water
joe. Shipping weight, about
b pounds.
If wanted for natural gas Wehrle Gas Water Heater.

If wanted for natural gas allow 50 cents extra.

Warms the Water While It Runs Through the Heater.

Runs Through the Heater.

No. 42N2241/4 In a stantaneous Gas Water Heater. Connected direct to city pressure. No bo ile r necessary. Hot water flows out of side of heater, but will not force hot water to fixture above heater. Made of copper, nickel plated. Diameter, 11 in; height, 30 in; will heat 2 to 3 gallons of water per minute to a temperature suitable for all household purposes. Fitted for 4-inch water pipe and 1/2-inch water pipe and 1/2-inch water pipe and 1/2-inch gas pipe. State whether wanted for natural or artificial gas. Shipping weight, about 65 lbs. Price\$30.00

Price\$30.00

Just the Thing Where Neither City Gas
Nor Water Pressure Are Available.

No. 42N2171/4 No. 42N2171/4
Gasoline Water Heater. Made of galvanized iron, nickel plated outside. Reservoir holds about 11 gallons of water. Draft chimney is entirely surrounded by water. This makes the water heat quicker. Will heat enough water for bath in fifteen to twenty minutes. Shipping wt., about 38 pounds,
Price. \$9.50

Price\$9.50

Above cannot be connected with water pressure and no range boiler is required.



TANK HEATER

Hercules Tank Heaters

For Heating Range Boilers and Storage Tanks.

Burn coal, wood or coke. Used for heating a range boiler to supply hot water for the kitchen and laundry, for heating large storage tanks, for supplying hot water to the different flats in a flat building, to keep the water in large stock tanks from freezing, for heating small greenhouses and swimming pools. Made of cast iron throughout. Each heater is tested to withstand a pressure of 40 pounds. Shipped from the factory in SOUTHEASTERN MICHIGAN. Prices are subject to market changes.

Hercules Jr. Tank Water Heater With One-Hole Top. No. 42N20151/4

No.	Hot Water per Hour, Gallons	Capacity in Square Feet of Radiation	Inside Diam. of Fire Pot	Height	Size Water Pipe	Size Smoke Pipe	Shpg. Wt., Lbs.	Price
10	75	50	10 in.	25 in.	1¼ in.	6 in.	230	\$16.50

Hercules Tank Heaters With Front Fuel Door. No. 42N2016 1/3







No. 42N20151/3



These Pump Outfits Are Complete, Ready to Put Into Your Well

All you need for installing them is a pipe wrench. Just screw the pipe and rod together and drop it down into your well. It is very simple; anyone can do it.

Each outfit consists of a pump, pump cylinder, suction pipe and cylinder rod. The pipe and rod are just the right length to fit down into a well of the depth for which the outfit is intended.

Outfits Nos. 42N51001/4 to 42N51061/4 raise the water from the well to the pump spout. It flows from the spout by gravity. Outfits Nos. 42N5130½ to 42N5135¼ raise the water from the well and force it out of the spout or through the opening in the back. They can, therefore, be used for sprinkling, washing windows, etc., or for forcing the water into an elevated storage

Eureka Anti-Freezing Lift Pump Outfit.

Lift Pump Outfit.

For Hand or Windmill Pumping.
For Dug or Open Wells.

A heavily constructed lift pump guaranteed to give excellent results in wells up to 80 feet deep, cylinder to be lowered whenever water is more than 25 feet below pump platform on page 30. Pump will lift water, but will not force it. Has combination head for attaching to windmill or pumping by hand. If, however, outfit is desired for hand use only, educt 25 cents from prices shown below and specify that outfit is desired for hand use only.

Prices quoted below are for complete outfit, pump, galvanized pipe, 3x10-inch iron cylinder and rod, all cut and threaded to the proper lengths. Easy to install. If a rather large quantity of water is desired, order a 3½-inch cylinder, allowing 50 cents extra. If outfit is wanted for wells deeper than 50 feet, allow 25 cents additional for each foot over 50 feet. For example, if your well is 75 feet deep, the cost of outfit will be \$18.25 for 50-foot well outfit, plus 25 feet extra at 25 cents a foot, \$6.25; total, \$24.50. Prices shown below are for pumps with iron cylinders. Brass body cylinders are more serviceable and if wanted in place of iron, add \$3.30 extra.

No. 42N51004 Pumping Outfit, complete with 1¼-inch pipe for 10-foot well. Shipping \$8.50 No. 42N5103½ Pumping outfit, complete with 1¼-inch pipe for 25-foot well. Shipping \$10.60 No. 42N5103½ Pumping outfit, complete with 1¼-inch pipe for 25-foot well. Shipping \$10.60 No. 42N5103½ Pumping outfit, complete with 1¼-inch pipe for 35-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1¼-inch pipe for 35-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1¼-inch pipe for 35-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1¼-inch pipe for 35-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1¼-inch pipe for 35-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1¼-inch pipe for 30-foot well. Shipping \$15.50 No. 42N5105½ Pumping outfit, complete with 1

Triumph Windmill Force Pump Outfit.

Pump Outfit.

Also for Hand Pumping.

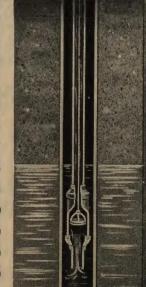
Especially designed to meet a large demand for a substantial high grade force pump outfit. Made of high quality material throughout. Fitted with 3x10-inch cylinder having a 6-inch stroke. Adapted for connecting to wind-mill, but also gives very satisfactory results when operated by hand. Brass cock at spout and brass shut off at back, as illustrated, enables changing of water discharge from spout to pipe leading to an elevated tank. By connecting 1-inch galvanized pipe to shut off, also known as back attachment, water can be forced into an elevated tank or reservoir placed at a distance from the pump. Cock at spout is threaded for % inch hose and pump will throw a stream of water for some distance. An excellent pump for fire protection as well as supplying water to storage or other tanks. Pipe leading from pump to tank not included at prices quoted below. It must be ordered separately, Triumph outfits cannot be used in wells over 25 feet deep unless diameter is 4½ inches or more, as cylinder must be lowered into or near the water in well, as described on page 30, headed "How to Order a Pump Outfit." If wanted with brass body cylinder instead of iron, add \$3.30 extra.

No. 42N5130/4 Pumping Outfit, complete with 1½-inch plue for 20-foot well. Shipming 0.15

ch pipe for 60-foot well. Snipping \$25.60.

42N5135¼ Pumping Outfit, complete with ch pipe for 75-foot well. Shipping \$29.70.

foot valves and strainers see page 33.



First Quality Iron Pumps, Priced Low



Suction pipe screws into pump at spout. This prevents freezing in cold weather. Iron cylinder 10 inches long with 6-inch stroke, fitted for 1¼-inch pipe. If wanted with galvanized pipe from pump to cylinder, add 50 cents extra. For information on ordering your pump outfit, ee section headed "How to inche a Pump Outfit," on his page. Shipping weight, bout 62 pounds.

No. 42NF

-inch	cylinder. cylinder. cylinder.	Price\$6.85 Price6.90 Price7.95
	cylinder.	Price 8.35



Triumph Hand Anti-Freezing
Lift Pump.

feet deep. Top of pump covered except where piston rod connected to handle with oscillating coupling, making it work more easily. Guaranteed to give excellent results when cylinder is lowered as explained in "How to Order a Pump Outfit" on this page. Four feet of black suction pipe included. Iron cylinder, 10 inches long, 6-fnch stroke, If wanted with brass body cylinder instead, add \$3.30 extra. If wanted with galvanized (instead of black) pipe from pump to cylinder, add 50 cents extra. Shipping weight, about 64 pounds.

No. 42N52644/4 3- in. cylinder. \$7.30 No. 42N52664/4 3½-in. cylinder. 9.90



How to Order a Pump Outfit.

How to Order a Pump Outfit.

We show a complete line of pumps on the following pages at prices (quality considered) exceptionally low. We list two styles, lift pumps and force pumps. Lift pumps merely lift the water to the spout from which it diws. Force pumps not only lift the water to the spout, but will also force it up into an attic tank, through a garden hose, or to different places on your premises.

On this page we list two complete pumping outfits, including everything cut and threaded, ready to set up. If neither of these outfits quite suits your requirements, it is easy to make up your own outfit from the pumps on the following pages. Follow the few directions given below and you will receive your outfit all cut and fitted.

If you would like an estimate from us, send us the dimensions of your well, and tell us whether you wish to lift or force the water.

To figure your own outfit, first measure the depth and width of your well, also the distance from ground to water. Then select a pump to fit your needs. This will depend upon the amount of water you use, the depth of your well, and whether pump is to be operated by hand, windmill or belt power. The larger the cylinder and the longer the stroke, the greater amount of water can be pumped per stroke. For ordinary purposes a 3-inch cylinder and a 6-inch stroke are sufficient. With a deep well ft is necessary to use a smaller cylinder and a 10 negre stroke, otherwise pump would work too hard. In our descriptions of pumps we advise as to the best size to use.

If distance from ground to surface of water is more than 25 feet, it will be necessary to lower cylinder. To obtain best results, place cylinder down in water. This keeps it primed at all times. For lowering cylinder we charge 7 cents a foot, which covers cutting and threading cylinder rod. This charge does not include piping.

Order sufficient pipe to reach from pump down into well, to a distance 10 feet below lowest possible water level (except when water is shallow), and sufficient extending cyli

No. 42N52641/4	One pump with 3-inch cylinder.	30
No. 42N57111/4	36 feet 1%-inch galvanized pipe (pump is furnished rod) at 18 cents per foot.	



No. 42N5301¹/₄ 2¹/₂-in. cylinder...\$10.25 No. 42N5302¹/₄ 3 -in. cylinder... 10.30 No. 42N5303¹/₄ 3¹/₂-in. cylinder... 10.50

Pitcher Spout Iron Pump.

For wells or cisterns 20 feet deep or less. Has revolving top so handle may be turned as desired; 2½ and 3-inch cylinders fitted for 1½-inch iron pipe; 4-inch cylinder for 1½-inch iron pipe. Order pipe from water to pump.

No. 42N52001/4 21/2-inch iron cylinder. Shipping wt., about 20 lbs. Price....\$2.18 No. 42N52001/4 2½-inch brass lined cylinder, Price. \$3.60
No. 42N52021/4 3-inch iron cylinder, Shipping wt., about 23 lbs. Price. \$2.43

No pipe included in above prices.



Newstyle pump outfits complete with pipe
and cylinder rod. They
have no suction. Water
flows into top of cylinder
and is forced up pipe
and out of spout by
plunger. Requires no
priming, as cylinder is
always under water. Cylalways under water. Cyl-inder is 3x9 inches, por-celain enameled inside. Pump has 8-inch stroke, delivering a quart of water at each stroke of the handle.

the handle.

No. 42N5115¼

Newstyle Pump Outfit, complete for 10-foot well. Shipping wt., 45 pounds. Price...\$7.5%

No. 42N5116¼

No. 42N5117¼

Nowstyle Pump Outfit, complete for 15-foot well. Shipping wt., 60 pounds. Price...\$8.65

No. 42N5117½

Nowstyle Pump Outfit, complete for 20-foot well. Shipping wt., 70 pounds. Price...\$9.75

Nowstyle Pump Outfit, complete for 25-foot well. Shipping wt., 85 pounds. Price...\$11.20

Simplex Cistern Force Pump.

Force Pump.

For wells or cisterns 20 feet deep or less, Made of high quality cast iron, with brass cylinders, valve set and stuffing nut. Goseneck spout fitted with hose coupling or faucet cock, as illustrated. Tapped for 1½-inch suction and 1-inch top outlet for forcing water to elevated tank. Shipping weight, about 20 pounds.

Price \$6.72
No. 42N52091/4 With faucet spout and 3-inch cylinder. Price \$7.00



AntiFor wells not over 100 feet deep.
Has 10-inch cylinder, 6-inch stroke and 4 feet of 1½-inch black pipe.
Histon rod works through double guide.
Has closed top. Can be operated by wind-mill or hand. See top of this page, "How to Order a Pump Outfit."

to Order a Pump Outfit."

Prices quoted include iron cylinder. If wanted with brass body cylinder instead, add \$3.30 extra. If wanted with galvanized (instead of black) pipe from pump to cylinder, add 50 cents extra. Shipping weight, about 74 pounds.

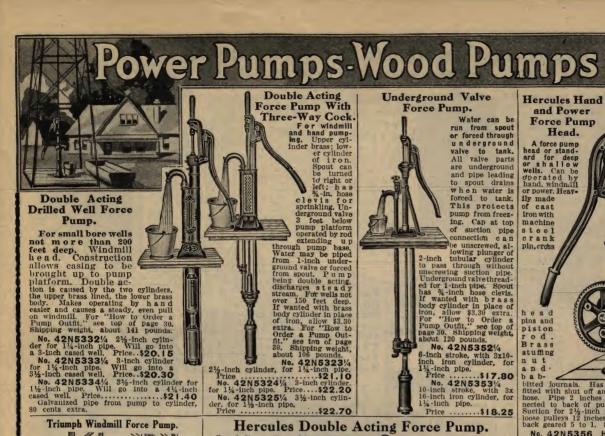
No. 42N52761/4 3-inch cylinder for 11/4-inch pipe. Price.........\$9.00

No. 42N52781/4 31/4-inch cylinder for 11/4-inch pipe. Price.......\$9.00

Extra Heavy Lift Pump.







Underground Valve Force Pump.



No. 42N5352/4
6-inch stroke, with 3x10-inch iron cylinder, for 1½-inch pipe.
Price\$17.80
No. 42N5353/4
10-inch stroke, with 3x
16-inch iron cylinder, for 1½-inch pipe.
Price\$18.25

Price\$18.25

and Power Force Pump Head. A force pump head or standard for deep or shallow wells. Can be dperated by hand, windnuill or power. Heavily made of cast iron with machine machine pin. cross h e a d pins and

Wood Farm Pumps.

Made from first grade 6x6-Inch stock, measuring about 5½ inches square when dressed. Nicely painted, striped and varnished. Iron handle brackets and iron spout. For wells not over 30 feet deep. When ordering include tubing listed below to reach from bottom of pump to bottom of well. When more than 9 feet of tubing is required, order coupling for each ioint to connect tubing. Shipping weight, about 38 pounds.

No. 42N54|2¼ Length, 6 feet, for wells up to 20 feet deep.

deep.
Price, plain pump...\$4.80
Price, with porcelain
lined cylinder....\$6.00
No. 42N54131/4 Length,
7 feet, for wells 20 to 25 feet

rect, for wells 20 to 25 feet deep.
Price, plain pump....\$5.40
Price, with porcelain lined cylinder.....\$6.60
No. 42N54141/4 Length, 8 feet, for wells 25 to 30 feet deep.

deep.
Price, plain pump......\$6.00
Price, with porcelain lined
cylinder\$7.20

iron pipe cannot be used with wood pumps.

Triumph Windmill Force Pump.



For "How to Order a Pump Outfit," see to of page 30, except fitted for connection with windmill. Can be operated by windmill or neight, anout 100 pounds.

100 pounds.

100 pounds.

101 pipe. If wanted with paiss body cylinder instead of iron allow \$3.30 extra. If wanted with galvanized (instead of black) pipe from pump to cylinder, add 50 cents cxtra.

extra. 42N5310¹/₄ 2¹/₂x10-in. cylinder.\$12.15 42N5312¹/₄ 3 x10-in. cylinder. 12.25 42N5314¹/₄ 3¹/₂x10-in. cylinder. 12.55 Extra Heavy Windmill Standard.

\$590

6-Inch

A lift pump head or standard

to replace your

worn out pump. Can be operated

can be operated by hand, wind-mill or pump jack and engine. Cannot be used for forcing wa-ter. Cylinder not included in

Hercules Double Acting Force Pump.



No. 42N53831/4 Capacity, Gallons Discharge

Capacities shown above are in gallons per minute, per minute. at forty complete strokes

For Pumping Sewage or Muddy Water. Recommended by contractors, sewer digagers and ditchers for pumping dirty or gritty water. Will quickly and sasily dispose of large quantities of drainage or sewer matter, mud, gravel and quicksand. Heavily constructed throughout with large valve ways.

Triumph Non-Clog Diaphragm Pump.

cylinder 57.20

No. 42N5415¼ Tubing to fit above pumps, 4 inches square, with 1½ linch bore, in random lengths from 6 to 9 feet. Shipping weight, per foot, about 1½ pounds. Per foot. 16c.

No. 42N5416¼ Couplings for Tubing. Shipping weight, each, about 5 pounds. Price, each. 48c

No. 42N5660 Plunger Leathers, for above pumps. High quality. Far superior to cross grained leathers. Shipping weight, each, about 8 ounces.

Price, each. Recom.

eto Heritan		110. 72	110200/4		
Pump No.	Suction	Hose or Pipe	Gallons per Hour	Shipping Wt., Lbs.	Price
1 2 3 4	Side suction Side suction Bottom suction Bottom suction	2½-in. 3 -in. 2½-in. 3 -in.	1,500 3,500 1,500 3,500	85 185 95 170	\$19.85 25.60 18.70 24.35
	For	Suction 1	Hose See In	dex.	

Cylinder not included in prices quoted.

For force pump seel No. 42N53474

or No. 42N53474

or No. 42N535114. Designed especially for heavy service, such as pumping water for stock and in feed yards; made extra heavy with high spout. Two-inch pipe generally used, but we will furnish for 1½ or 1¼-inch pipe when requested. Prices quoted do not include pipe, cylinder or rod. For "How to Order a Pump Outfit." see top of page 30. For cylinders, see No. 42N540244 to No. 42N54244, page 33. Shiping weight, about 71 pounds.

No. 42N53494 6-inch stroke.......\$5.90

Extra Heavy Windmill Force Pump Standard.





SEARS, ROEBUCK AND CO., CHICAGO.

ON FREEZING RE EXTINGUISHE

Fire Fighting Apparatus and Pumps

Extinguisher.

Extinguisher.

No. 42N5011/4 Contents will not freeze at 50 degrees below zero. Just the thing for barns, stables, warehouses or any other building that is not heated. To use, insert tool and jerk out seal nut. Consists of drawn steel reservoir, containing 2 gallons of solution under 90 pounds air pressure. To recharge pour in solution and pump in air with an ordinary bieyele or auto pump. Need never be recharged until used. Shipping weight, about 40 pounds. Complete directions with each extinguisher.

Price 7.15

No. 42N502 Eight-Pound Can Calcium Chioride and seal for recharging extinguisher. Price 900

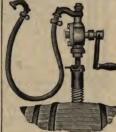
For Filling Thresher Tanks and Pumping Into Elevated and Stock Tanks.



double act-ing pump, sucking and discharging water at each

For Burning Rubbish of All Kinds. | Hercules Fire No. 42N5031/4

A Hercules Rubbish Burner prevents the



Extinguisher.

Approved by the National Board of Fire Underwriters.



Double Acting H and Force Pumps, Fitted with all brass valves, brass plugs also provided fdraining water from cylinder freezing, and for priming when 1½-inch suction and 1-inch openings both sides, threaded pipe. Cylinder, 4-inch stroke.

out 65 pounds, Price, Brass Lined Cylinder Diam. Cylinder, Inches Price, Iron Cylinder Catalog No. 42N54171/4 42N54181/4 \$13.75 \$11.75

No pipe included in above price

Acme Rotary Power Force Pump.

Will force water a horizontal distance of 200 feet and throw a solid stream 20 feet. An excellent pump for raising a large amount of pump for raising a large amount of water with minimum amount of power where lift is not over 15 feet and elevated tank into which water is forced not over 50 feet above pump. Fine protection in case of fire. Driving shaft made long enough to allow use of balance



wheel with handle so pump may be worked by hand when desired. Spouthreaded for iron pipe at end an also at top where it connects to pump. Can be run at 200 revolutions per minute without injury although 100 is recommended. I wanted with balance wheel and handle for hand power, allow \$3.60 extra Prices quoted do not include pipe or belt of public with the property of the public was a public with the public was a public with the public was a public with the public was a public was a

Shpg. Wt., About, Lbs.

e	. ,)m · astro
etdo	103 May 35%
d	
0	
_	
ŕ	man Lander De
Ι	
-	
3.	
t.	MARIO TIMA
d	(1)
	THE TOTAL STREET
=	STEEL STEEL
-	

Galvanized Steel Tubing.

Curb is made of No. 1 select wood, nicely painted. Chain is painted. Chain is heavily galvanized. Buckets furnished with this pump are made of good quality rubber with large inside flanges and links of galvanized steel, making it practically impossible for rubber to shift or become loose. We advise the use of this pump for wells no deeper than 20 feet, For wells of greater depth purchase one of our irron pumps. Shipping wt., about 64 pounds.

Pump for 10-ft. well ... \$4.60 42N54721/4 Pump for 12-ft. well... 4.95 Pump for 15-ft. well... 5.50 42N54731/4 42N54741/4 42N54751/4 Pump for 18-ft, well... 6.20 Pump for 20-ft. well... 6.60

Hercules Wood Curb Chain Pumps With | Hercules Galvanized Steel Curb Chain Pumps With Galvanized Steel Tubing.

Gal. per Minute at 100 R. P. M.



same In construction as No. 42N5472½
except furnished with
steel curb. Curb is
24-gause galvanized
sheet steel. Steel
pump curb is stronger
and lasts longer
All pumps furnished complete for depth
wells specified
below, with galvanized chain,
rubber buckets,
etc. For wells

vanized chain, rubber buckets, etc. For wells deeper than 20 feet use 1 ron pumps listed on pages 29 and 30. Shipping weight, about 75 pounds.

| In well. Shipping | No. 42N5442½ | No. 42N5443½ | No. 42N5443½ | No. 42N54461½ | No. 42N54461½ | No. 42N54561½ | No. 42N5461½ | No. 42N5461½ | No. 42N5461½ | No. 42N5461½ | No. 42N54561½ | No. 42N5461½ | No. 4

Challenge Wood Curb Purifying Pumps.

Size Pulley, Inches



Challenge Steel Curb Purifying Pumps.

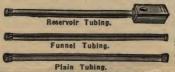


Galvanized Pump Chain.

No. 42N5478 Extra Chain for chain pumps. Shipping weight, per foot, about 5 ounces.

Price, per foot.........................4½c

Galvanized Steel Tubing.
No. 42N5486¹/₄
Used In connection with No. 42N5455¹/₄ and No. 42N5472¹/₄ Chain Pumps. Furnished in 5, 6, 7 or 8-foot lengths. Reservoir tubing is used in connection with the pump



curb. Funnel tubing goes at bottom of pump, and plain tubing connects reservoir and funnel tubing where the two are not sufficient. Shpg. wt., per ft., about 12 oz. State length and kind wanted.

Price, per ft.... | 4c

Chain Pump Buckets. No. 42N5477

Rubber Buckets for chain pumps. Shipping wt., about 3 oz. Price, each.... 4c Per dozen....40c



Ram, Boring Outfits, Pump Accessories

Round Steel Pump Rod. No. 42N5630 For connecting pump peads. Furnished in any length desired up to 18 feet. Size, ½ inch. Not threaded. Shipping weight, per foot, about 8 ounces. Price, per foot......4½c

Threads, extra, per cut, 2 nts.

Pump rod threading stock No. 42N6095 is shown on page 26.

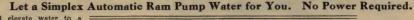
Galvanized Rod

Couplings. For steel pump Shipping wt..

bout 2 ounces.
No. 42N5620 Size, % inch, I .40

Size. %s inch. 12 threads to the inch.

No. 42N5622 Size, ½ inch, 14 threads to the inch.



Size of Supply Pipe

Hydrants No. 42N17201/4

No. 42N17201/4 Inexpensive, serviceable, frostproof. Attach to underground pipe below freezing point. Made of galvanized iron with cast iron spout threaded for garden hose and brass slutoff valve. Valve waste drains hydrant when turned off and prevents freezing. Shipping wt., about 20 pounds. % In. 11

0 pounds. 34 In.
ft. long. . \$1.80
ft. long. . 1.85
ft. long. . . 2.00

per Minute Necessary to Operate Ram

elevate water to a high tank or reservoir, or will force it a long distance from the source of supply. Set the ram below a spring or body

Cast Iron Hydrants.

high tank or force it a long distance. The source of supply. Set the ram below a spring or body of water at a distance of from 25 to 50 feet. Will lift water 4 to 10 feet for every foot of fall (difference in level) between water and 42N5399½ 4 1½ to 4 42N5399½ 4 1½ to 4 42N5399½ 4 1½ to 4 42N5400½ 6 to 14 2 in. 1 in

a special com-pound which makes it waterproof and very tough. Will give extra long wear. Shgg. wt. about 8 oz. Sizes are inside diameter of cylinders. Size, in. 2 21/4 21/2 23/4 Price ... 13c 151/2c 171/2c 211/2c Size, in. 3 31/4 31/2 33/4 4 Price....250 28c 35c 46c 54c New Process Lower Valve Leathers. No. 42N5659
Made of very tough high quality leather. Will give long and satisfactory wear. Shipping weight,

New Process Plunger Leathers.

42N5657 lade of first Made of first quality leather saturated with

Spiral Earth Augers.

No. 42N62101/4 For Boring
wells, prospecting, etc. Made with
tool steel auger and tough steel
shank. Works inside of pipe. State
whether open or closed style is
wanted.

Price, Price, Either

For Shps.
For Pipe, In. Wt., Abt.
2 7 1bs.
2 1/2 12 lbs.
3 1/4 lbs.
3 1/2 18 lbs.
4 35 lbs.
5 52 lbs.
68 lbs. Shpg. Shank Style 17 193. 1 in. \$4.10 12 12 13 14 in. \$4.10 12 12 in. \$4.45 13 14 in. \$4.45 14 in. \$5.80 13 in. \$5.80 13 in. \$1.00 12 i

Hydraulic and Jetting Drills.

No. 42N6217 Sand Pump and a Drill combined. Made of solid plece of steel with leather valve. Sizes given are for size pipe drills will pass through. about 4½ pounds. ken. For 1¼ and 1½-inch about 4½ pounds. Size, inches. 2 2½ 3 price, each.\$1.60 \$2.40 \$3.20 lith.

No. 42N5612¼ Harder the pull, tighter the grip. For 1, 1¼ and 1½-inch pipe. Dog has corrugated chilled

Little Giant

260

.....\$2.40 Malleable Iron Driving Caps.

No. 42N5682 Screwed on top of pipe to protect threads when driving it down. Made extra heavy, will not crush threads.

Drive Well Points.

has corrugated chine-ce. Shipping wt., about

Price



brass gauze, and gauze covered and protected by a perforated brass jacket. No. 60 gauze is used for coarse sand and No. 100 gauze for fine sand. Flush point is dropped into tubular wells. Drive well point is driven into sand. State which is wanted.

No. 42N56801/4 Tubular well

No. 42N56811/4 Drive well point.

Diam-Shpg. Wt., 60 100
eter, Lgth., About, Gauze, Gauze,
In. In. Lbs. Price Price

No. 42N6475 Float Valve to regulate supply of water in watering troughs, tanks, etc. By changing postion of lever, valve can be placed on bottom or side of tank. Float not

Hydrants.

No. 42N1725/4
Anti-freezing, su bstantially made.
Threaded for garden
hose. Waste emptles
water from rising
pipe when valve is
closed. Opening valve
closes waste. Valve
can be pulled out at
top for repairing,
th us avoiding digging it up. Shipping
weight, about 44 lbs.
Size, ¾ in. To set
in ground 3 ft...\$6.00
Size, ¾ th. To set in
ground 4 ft...\$9.00
size, 1 in. To set in
ground 4 ft...\$9.00
copper Tank Float used No. 42N6478 Copper Tank Float used in connection with above Float Valve for opening and closing it. Size, 9½x2¾ inches. Shipping wt., about 2 lbs. Price....\$1.55



No. 42N5665 Hang on pump spout and connect with Iron pipe for conducting water to tank or trough. State size wanted. Shipping wt., about 51/2 pounds

Price for 11/4-inch pipe...40c Price for 11/2-inch pipe...45c



No. 42N5646 Used on end of suction pipe to keep out foreign matter. Covered with brass wire cloth. Size Shipping Wt. 1 in. About 1 ½ lb. 280 1½ in. About 1½ lbs. 320 1½ in. About 1½ lbs. 36c 2 in. About 2½ lbs. 50c

Tubular Well Cylinders.

Dropped down into pipe of sizes listed below. Easily set in pipe at any desired depth or removed for repairing. Only tool required is seating tool listed below and enough 1-inch pipe to lower tool to point where cylinder is to be placed. Body made of seamless drawn tubing with brass valves. Stroke, 12 inches. Not made smaller than 2 inches.

No. 42N54621/4 Size, 2 inches. Shipping weight, about 7 pounds. Price\$4.60

No. 42N5463% Size, 2% inches. hipping weight, about 9 pounds. Price\$8.40 No. 42N5464¼ Size, 3 inches. hipping weight, about 12 pounds. Price ...\$11.50

Seating Tools.

No. 42N6220/4
Above pumps take sand and dirt from bored and drilled wells.
Size, 3 in. Shpg. wt., about 6 lbs. Price. \$2.90
Size, 4 in. Shpg. wt., abt. 10 lbs. Price. \$4.00
Prices on 5, 6, 7 and 8-inch quoted on application. No. 42N5465 Seating tools for placing the above cylinders in well, or for drawing them out of pipe.

For 2-in, cylinder, Price. 45c For 2½-in, cylinder, Price. 60c For 3-in, cylinder, Price. 80c

Hercules Well Boring Outfit and Post Hole

Iron and Brass Body Pump Cylinders. Our cylinders are as good as skilled workmen can produce and our prices are as low as first qual-

IRON BODY CYLINDERS

Sand Pumps.

our prices are as low as first quality, well made goods can be sold for. 10-inch cylinders have 6-inch stroke, 12-inch an 8-inch stroke, and 16-inch a 10-inch stroke. Cylinders 31½ inches in diameter fitted for 1½-inch pipe; all others fitted for 1½-inch pipe; all others fitted for 1½-inch pipe. 10-inch cylinders have one leather on plunger, 12 and 16-inch cylinders have two. Brass body cylinders have a brass cage and valve in the plunger.

Diam., About In. Lbs. 2 9 12 12 15 21 PRICES ON LARGER CYLINDERS

No. 42N542014 42N542114 42N542214 42N542314 42N542314 QUOTED ON

BRASS' BODY CYLINDERS,
Weights Same as Iron Boy.
Diam., 10-In. 12-I
Inches Long Long ody. 12-In.

16-In.



Pump especially suitable for mounting upon wagon or truck. Brass body cylinder and large cast iron air chamber mounted upon cast base which also supports drive gears. Cylinder of seamless brass tubing with brass ball intake and discharge valves; diameter, 2½ inches, 4½-inch stroke. Pump has 10-inch drive pulley. Back geared 4 to 1.

Our Economy Engine with magneto, capacity 1½ horse-power, is fully described on page 1504 of our big General Catalog No. 137.

Asitator (not shown in illustration) for keeping solution thoroughly mixed is made to fit ordinary 50-gallon hardwood barrel or tank or reservoir of same height.

Accessories consist of pressure gauge, relief or overflow valve, one 20-foot length of ½-inch spray hose with 3 feet of spray pipe, shut off cock and nozzle, 6 feet of suction

Hercules Power Sprayer—A High Quality Power Sprayer. Sprays Whitewash and Water Paint as Well as Chemical Solutions for Killing Insects and Plant Diseases. hose with strainer, 5 feet of overflow hose to lead from relief valve back to tank, and 10 feet of 2½-inch rubber belting. For extra lead of hose and other accessories see bottom



Painting.

Perfection Barrel Sprayer.

All parts of pump, excepting handle, are Inside barrel or tank. Nothing to catch in low hanging branches. As suction cylinder is submerged it requires no priming. Pump consists of large tube, into which solution is compressed before delivered to nozzles. This produces an even, steady flow. Pressure of 100 or 125 pounds can be obtained, breaking up even heavier solutions into fine, mistlike spray. Brass suction cylinder, valves and valve seats. The propared canvas packing not affected by strong solutions and will last a long time. Paddle agitator, consisting of two paddles, keeps solution thoroughly stirred up. Can be attached to any ordinary watertight barrel. Friese quoted do not include hose, sut offs, weight, about 66 pounds.

No. 42N556654 Perfection Barrel Sprayer, with paddle agitator. Fitted for one lead of hose. No hose included \$8.20 No. 42N556654 Perfection Barrel Sprayer. Fitted for two leads of hose. No hose included \$8.25

One-Haif Inch Five-Ply Spray Hose With Misty Nozzle and Shut Off Cock.

Nozzle and Shut Off Cock.

No. 42N5514 5 feet long. Shipping weight, about 3 pounds. Price. \$1.35

No. 42N5515 10 feet long. Shipping weight, about 6 pounds. Price. \$2.45

No. 42N5517 25 feet long. Shipping weight, about 13 pounds. Price. \$4.25

For Spraying Tall Trees.

No. 42N5516 Galvanized Extension Tube, 8 feet long. Shipping wt., about 7 lbs. Price. 55c

For Spraying Whitewash or Cold Water Paint.

No. 42N5534 Hercules Whitewash Nozzle, Fits hose or %-inch pipe thread. Shipping weight, about 8 ounces. Price. 60c



Combination Sprayer and Wheelbarrow.

Whitewashes, Paints and Sprays.

nd cover are made of high grade brass. \$14.60

Price

No. 42N5534 Designed especially for whitewashing nd cold water painting. Made of cast brass with chilled teel disc. Shipping weight, about 8 ounces. Price

600

Convenient Size for Hanging Over Your Shoulder and Spraying the Garden, Shrubs, Bushes and Small Trees. Sprayrite Portable

Sprayer.

Galvanized iron tank holds 2 gallons. Brass pump. Handle locks for carrying. Safety valve, 2 feet of hose and brass nozzle for fine mist or coarse spray. Shipping wt., about 12 pounds.

No. 42N55701/4

Sprayrite Compressed Air Sprayer\$4.35

When Not Used for Spraying, Keep This in Your House or Barn as a Fire Extinguisher.

Marvel Spray Pump and Fire Extinguisher.



Brass Body Bucket Sprayer. Has brass body and brass ball valves. Pressure on handle is en-tirely on down stroke, making it easy to operate. Spray nozzle can be detached and a solid stream nozzle attached for sprinkling. Shipping weight, about 9 pounds.

No. 42N5521 Handy Bucket Sprayer with the rest. Price.....\$3.30 foot

Bucket not included in above prices

and Applying Disinfectants.

Perfection Rod Sprayer. Pump is double acting, forcing solution from nozzle in a continuous spray under high pressure. Sprayer ma de of brass with two wood handles and rubber suction hose, with piece of pipe and strainer on end. Shipping weight, about 4 pounds.

No. 42N5541 Perfection Rod Sprayer. Price. \$3.85

For Dusting Plants With Paris Green, Arsenate of Lead and Other Chemicals in Powder Form.

Fan driven by gears, not a belt. This duster will cover two rows at a time as fast as operator can walk and is adjustable for rows and for dusting small trees and the starts. Complete instructions included. Shipping weight, about 10 pounds.

snaps. Complete instructions included. weight, about 10 pounds.
No. 42N5506/4 Gem Crank Duster.
Price For Spraying Vege-tables and Bushes.

mkt or coarse sprayer. Adjustable for fine mixt or coarse spray. Furnished with brass to will spray up or down in any position. I quart. Shipping weight, about 3 pounds. I 2N5523 with Tin Pump and Reservoir. ball valve. Will s Capacity, 1 quart. No. 42N5523

Has Detachable Glass Reservoir.



Medium and High Pressure Spray Hose.

HERCULES ___ For sprayers with ½ or ¾-inch standard hose nection.

connection.

No. 42N5504¼ Perfection ½-inch, 5-Ply Spray Hose for 150 pounds pressure. Comes only in lengths specified below with coupling connection at each end. Shipping weight, per foot, about 8 ounces.

Length, 5 feet...\$0.66 | Length, 25 feet...\$2.00

Length, 10 feet... 1.04 | Length, 50 feet...\$2.00

No. 42N5505¼ Hercules ½-lnch 2-Ply Spray Hose for 300 pounds pressure, special seamless braided, high quality and expert manufacture. Comes only No. 42N5505¼ Het Hose for 300 pounds presed, high quality and expe in lengths specified below at each end. Shipping w Length, 10 feet...\$1.60 Length, 15 feet...\$2.40

the for hand and power sprayers. Has fine and coarse spray discs. Shpg. wt., 8 oz. Price....55c

42N5533 Bordeaux Nozzle, Pro-duces a fan shaped spray. For spray-ing, whitewashing and cold water painting, brast throughout, with regulat-ing screws Shipping wt., about 7 counces.



pounds. Solution is put in reservoir, and then air is pumped into it with the air compressor in center of tank. Reservoir has total capacity of 3 gallons. Pump cylinder is of brass tubing with rubber valve, brass valve spring, leather plunger and steel rod. Sprayer fitted with heavy web shoulder strap, 2-foot length of spray hose. By attaching extension pipes, listed below, tall trees and high windows can be reached. Spray calendar sent with each sprayer. Shipping weight, about 16 pounds.



No. 42N5555¼ Gal-vanized Sprayer with auto-matic cock, Price

.....\$8.05

No. 42N5558 Brass Extension Pipes. out 2 feet. Shipping weight, about 8 ounces.



No. 42N55011/4 Galvanized Sprayer with common cock.
Price\$4.50

No. 42N5502¼ Brass prayer with common cock.
Price\$7.35 Length,

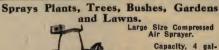
Simple, Easy to Operate, Light and Convenient. Made of bright tin coated with Egyptian lacquer. Four noz-zles included, as illustrated. Shipping weight, about 4 lbs.

No. 42N55181/4
Bucket Spray Pump.
Price, ea.\$ 0.95
Per doz.. 11.25 Bucket not in-cluded in above

No. 42N5546 Brass Strainer, for straining solutions into sprayer. Size, about 3x5½ inches. Shpg. wt., 8

No. 42N5536 One-Point Vermorel Nozzle. Shipping weight, about 4 punces. Price.....600

No. 42N5537 Two-Point Vozzle. Shipping weight, about 8 Two-Point Vermorel \$1.20



Capacity, 4 gallons. After solution is poured in air is pumped in to a pressure of 50 to 75 pounds. to 75 pounds.
Sprayer is then carried in hand or hung from shoulder by strap. Merely pressing lever of automatic cock releases a fine mist-like spray. Sprayer consists of galvanized steel tank or fine mistlike spray, 3 feet of spray hose with brass extension pipe. Shipping weight, about 20 spray hose with the strategy of the strateg

No. 42N5554 Compressed Air Sprayer, complete. Price \$5.95

Sprays Any Chemical in Liquid Form.



Will Dust Paris Green, Hellebore, Dry Arsenate of Lead and Other Insect
Killing Chemicals.





Bamboo Extension Pipe. Light, but substantial, and sufficiently thick to give user a firm grip. All metal parts are brass, preventing the formation of scale to clog nozzle. Made 9 feet long only. Shipping weight,



No. 42N5539 Cast Brass U, 4-inch pipe thread. Shipping weight, about 5 ounces. Price36c

No. 42N5549
Brass Elbow.
For spraying
from beneath.
Shipping weight,
Price.....36c 8 dunces

Cast Brass Ground Key Shut Of Threaded.
Male and female for 4'-inch pipe. Shipping weight, about 12 ctures.



wash Nozzle, brass with chilled steel disc.



No. 42N5538 Four-Point Vermorel ozzle. Shipping weight, about 1 lb.

Standard Galvanized Steel Tanks



We guarantee our STEEL TANKS to be equal to any produced and our prices to effect a saving for you, quality considered. Order a tank from us with the understanding that it must be exactly as we represent it or you can return it at our expense and we will return your money and freight charges. Prompt shipment of all sizes.

Prompt shipment of all sizes.

We use nothing lighter than United States Standard No. 20-sauge galvanized sheet steel. The weights shown for our tanks are the actual average shipping weights. We do not list our tanks at estimated weights which are often much in excess of actual weights. Remember this when making comparisons. Workmanship on our tanks is absolutely first class. All seams in No. 20-gauge tanks are lock seams and are carefully soldered, no edges coming in contact with the water. Tanks made of No. 18 and No. 16-gauge steel have riveted and soldered seams. Tops are bound with angle steel. Bottoms of all tanks over 1 foot in height are secured between two pieces of flat steel or

are bound with angle steel, depending upon size and shape of the tank. See illustrations. Sides are firmly braced (when size and shape require it) with angle steel bars. Round end, square end and oval tanks 6 feet or longer have angle steel bars across the top, the number of bars depending on the size of tank. Measurements in all cases are outside, over all.

are outside, over all.

Certain Standard tanks which are regularly shipped set up can and will be shipped knocked down if so ordered, and when such tanks weigh much over 200 pounds and are to be shipped over 500 miles, or when any sizes of such tanks which weigh 125 pounds or more are to be shipped over 1,000 miles, we advise that you order them shipped knocked down, because you will then save in freight charges more than it should cost you to put the tanks together.

When tanks are shipped knocked down, all holes are punched, every part is fitted together at the factory and sufficient solder and rivets are sent with which to put the tank together. Capacities shown in barrels are based on 31½ gallons to the barrel.

We will not cut pipe connection holes in steel tanks. You can easily cut holes exactly where you want them, by using a cold chisel and cutting galanst a block of hardwood. Order pipe connections if you wish to connect pipe to tank.

Round Storage Tanks.

Size Nos, A23, A8, A24 and A25 are made of No. 20-gauge galvanized steel, but can be made of No. 18-gauge at prices one-fifth higher, or of No. 16-gauge at prices one-fifth higher. Size No. A12 is made of No. 18-gauge steel, but can be made of No. 18-gauge steel, but can be made of No. 18-gauge steel, but can be made of No. 18-gauge steel, because lighter gauge is not strong enough for such large tanks. When studying prices, don't forget to note the gauge of steel of which the tanks are made. These tanks are always shipped knocked down because they are too large to go into the door of a freight car. They do not have lock seams but are punched for rivets. Prices include sufficient solder and rivets. Shipped knocked down from factory in SOUTHWESTERN MICHIGAN.

No.	Size No.	Gauge,			Cap., Bbls.		Price
32N4388 32N4389	A 8	20 20	6	6	39½ 53½	265 \$ 330	36.74 45.12
32N4392 32N4393 32N4394	A25	20 20 18	8 8	5 6 8	60 71½ 95	330 375 590	49.86 55.09
32N4395 32N4398	A18 }		8	10	119 150	910	81.86 107.28 124.92

Pine Connections for Steel Tanks.

We do not cut pipe connection holes in steel tanks, because it is a difficult matter for anyone to tell until he receives his tank just where it is best to cut the hole. You can easily cut the hole by using a cold chisel and cutting against a block of hardwood. Our galvanized pipe connections consist of one close nipple, two leather washers, two lock nuts, and one pipe cap, to close the pipe hole when you wish. Shipped from CHICAGO or from factory,

No. 32N4300 Pipe Connection.

Shipping weight10 oz.	1 lb.	1% lbs.	2 lbs.	3 lbs.
Price35c	450	55c	68c	90c

Square End Tanks.



No.		L'gth, Feet		h, Ht., Feet	Cap., Bbls.	Wt., Lbs.	Price
32N4368 32N4369 32N4370	47 28	4 6 8	2 2 2	2 2 2	4 6 71/2	75 100 130	\$ 8.49 10.99 15.95
32N4372 32N4374 32N4379	30 32 37	8 8 10	2½ 3 3	2 2 2	9½ 12 14	145 155 195	17.46 18.69 21.91



Hinged Covers for Steel Tanks.



Furnished in the styles shown, styles shown, styles shown, styles shown, styles and compared tanks. Covers are sold by the square foot. Measure at the ends. Made of No. 20-gauge steel. Weight, about 2 pounds per square foot. State style wanted. Shipped from tank No. 32N4306 Steel Cover.

Price, per square foot.

Round Tanks.

KOUIG I AIRKS.

Made of No. 20-gauge galvanized steel. Will make of No. 18-gauge at prices one-fifth higher. Always shipped set up unless otherwise ordered. (See general description at top of page.) Shipped from factory in SOUTHWESTERN MICHIGAN.



	Size	Diam.,	Ht	Capacity,	Wt	
No.	No.	Feet	Feet	Barrels	Lbs.	Price
32N4310	1	4	2	6	80	\$ 9.98
32N4311	2	4	21/2	7	90	11.32
32N4312	1 2 3 4 5 6	4	3	9	100	13.35
32N4313	4	4	4	12	125	16.80
32N4314	5	5	2	91/2	110	13.62
32N4315	6	5	21/2	12	120	15.22
32N4316	7	5	3	14	135	16.29
32N4317	8	5	3 4 5	19	160	22,05
32N4318	81/2	555556	5	24	185	24.95
32N4320	9	6	2	14	140	16.82
32N4321	10	6	21/2	17	155	18.37
32N4322	11	6 -	3	20	170	21.00
32N4323	12	6	4	27	200	26.23
32N4324	43	6	5	34	235	31.50

Round End Tanks.

Made of No. 20-gauge galvanized steel. Will make of No. 18-gauge at prices one-fifth higher. A lways shipped set up unless otherwise ordered. (See general description at top of page.) In figuring the capacity no allowance has been made for the round corners, therefore these tanks will not hold quite as much as the table shows. Shipped from factory in SOUTHWESTERN MICHIGAN.

	Size,	L'gth	, W'th,	H'g't	, Cap'ty,	Wt.,	
No.	No.	Feet	Feet	Feet	Bbls.	Lbs.	Price
32N4334	C12	4	2	2	33/4	61 3	\$ 7.36
32N4336	B13	6	2	2 2	5 %	90	10.79
32N4337	13	8	2 2 2		7½ 9½ 9½	120	12.86
32N4338	14	8	2	21/2	91/2	140	14.68
32N4339	15	8	21/2	2	91/2	135	13.62
32N4340	16	8	21/2	21/2	12	145	15.74
32N4341	17	8 8	3	2	12	140	14.68
32N4342	18		3	21/2	14	155	16.80
32N4347	22	10	3	2	14	170	18.36
32N4348	23	10	3	21/2	18	195	21.05

Kenwood Ball Bearing Windmills



A Kenwood Windmill will pump all the water needed for a country or suburban residence, as well as for all farm purposes. The first cost is small and the expense of operation nothing except a few drops of oil occasionally. They are extra heavy and strong, as will be seen by a comparison of our weights with the weights of other windmills. A Kenwood Windmill will give long service, withstand the stress of storms longer, and prove more satisfactory in every way than any lighter built windmill.

Ball Bearing Turntables and

Ball Bearing Turntables and Ball Bearing End Thrust back of the wind wheel permit the Kenwood to respond readily to changes in direction of the wind, and they will run and pump water in the lightest breezes.

They are self governing. The adjustable weight and lever governor as used in the Kenwood is the most reliable form of windmill governor. It will hold the windmill into any wind in which it is safe to run. Should the wind become too high, the windmill will swing quietly out of the wind. When the wind abates, the windmill will swing back into the wind and resume pumping.

Workmanship and materials are first class. Shaft bearings are of large proportions and lined with hard engine babbitt. Gears are smooth and true. Large oil reservoirs provide ample lubrication.

The steel wheels are made of heavy gauge steel and galvanized after all the parts are made. Each wheel section is thus practically soldered into one solid piece by the galvanizing. This is a most important feature, as it means thorough protection spainst rust. There are no raw edges, or bolt holes exposed to rust. All bolts on wheel and rudder are galvanized and have double nuts. Steel wheels and rudders are nicely striped with red paint.

Prices include pump pole, pull-out wire, reefing gear, bedplate and truing spider with which the mill is attached to tower, but price does not include tower or platform. When windmill is ordered without tower we will ship it with bedplate and truing spider for a four-post wood tower, and with sufficient pump pole and pull-out wire for a tower 40 feet high, unless otherwise ordered. Kenwood Windmills are shipped from factory in NORTHEASTERN INDIANA,

No. 32N4006 Prices of Back Geared Steel Windmills.

No. 32N4006 Froot Back Geared Steel Pumping Windmill.

Weight, 305 pounds. Price.

No. 32N4008 S-Foot Back Geared Steel Pumping Windmill.

Weight, 425 pounds. Price.

No. 32N4010 10-Foot Back Geared Steel Pumping Windmill.

Weight, 630 pounds. Price.

No. 32N4012 12-Foot Back Geared Steel Pumping Windmill.

Weight, 970 pounds. Price. \$27.50 56.80 89.25

Four-Post Windmill Kenwood Towers



Towers

Our Steel Towers are very strong and substantial and are properly proportioned and braced in every way. Every corner post, brace, band girth, bolt and nut is heavily galvanized after all cutting, punching and other machine work is done. This insures every part of the steel being covered with non-rusting metal and gives complete protection against rust. Our towers are braced diagonally as every are so come and refer corner and every are so properly and the steel being covered with non-rusting metal and gives complete protection against rust. Our towers are braced diagonally as every are so considered to the properly and the constant of the steel being covered with non-rusting and refer corner are properly and the so that the several so the steel of bands for each 10 feet of their height, also a band at the platform and two bands above the platform which serve as steps. No. 1 towers are intended for use with 6 and 8-foot windmills, but in view of the small difference in price we recommend that a No. 2 tower be used with an 8-foot windmill. Nos. 2 and 3 towers have bands 5 feet apart for the entire height of the tower, also a band at the platform and two extra bands above the platform which serve as steps. No. 2 towers are suitable for 8-foot and 10-foot windmills, but we recommend that you use a No. 3 tower for 10-foot windmills when elevated more than 40 feet. No. 3 towers are suitable for 10-foot or 12-foot windmills any height. Our towers are full height; every corner post is 10 feet 6 inches long, the extra 6 inches being allowed for the lap of one post over the one below it. This feature makes a stronger and better finished tower and also serves to prevent water from running into the corner post joints. Illustration shows a 40-foot No. 2 or No. 3 tower. Prices are for towers complete with platforms, ladder, rod guides, anchor posts and anchor plates and building instructions for erecting, but do not include windmill. Shipped from factory in NORTHEASTERN INDIANA.
No. 1 Tower. Weight, 485 pounds......

No.	32N4112	20-Foot	No.	1	Tower.	Weight,	345	pounds\$	29.95
No.	32N4113	30-Foot	No.	1	Tower.	Weight,	485	pounds	39.90
No.	32N4114	40-Foot	No.	1	Tower.	Weight,	635	pounds	52.10
No.	32N4122	20-Foot	No.	2	Tower.	Weight,	355	pounds	31.50
No.	32N4123	30-Foot	No.	2	Tower.	Weight,	520	pounds	44.75
No.	32N4124	40-Foot	No.	2	Tower.	Weight,	700	pounds	57.80
No.	32N4125	50-Foot	No.	2	Tower.	Weight,	975	pounds	80.35
No.	32N4126	60-Foot	No.	2	Tower.	Weight,	1,275	pounds	103.60
No.	32N4132	20-Foot	No.	3	Tower.	Weight,	405	pounds	33.75
No.	32N4133	20-Foot	No.	3	Tower.	Weight,	580	pounds	47.90
No.	32N4134	40-Foot	No.	3	Tower.	Weight,	785	pounds	69.25
No.	32N4135	50-Foot	No.	3	Tower.	Weight,	1,085	pounds	86.65
No	32N4136	60-Foot	No	3	Tower	Weight.	1 410	nounds	110 50

TILE FOR PORCHES, KITCHENS AND **BATHROOMS**

A Fully Tiled Bathroom Thing of Beauty. but More **Important** Than Its Beauty Are Its Perfect Sanitary **Oualities**



A Tiled Floor and Wall Gives a Room a Neat. Clean, Spick and Span Appearance Not Equaled by Any Other Material



The Old Way

The use of tile for the floors and walls of a bathroom or kitchen should be favorably considered by everyone who is building a home or who expects to make alterations in his present home. There are few things which add so much to the real usefulness as well as to the appearance of a bathroom or kitchen as a tile floor and walls,

The more prospective house builders look into this question of tile for the home the more they are going to use tile. Tile is absolutely impervious to moisture. No such satisfactory surface material can be secured in any other way. Before you build send us the plans for your bathroom, kitchen and vestibule, and let us furnish you an estimate of the cost of tile for floors and wainscoting.

With our complete instructions you can lay the tile yourself and do as good a job as any high priced tilewright.

House Owners, Builders, Contractors and Architects: Send us a rough sketch with accurate measurements, or your blue prints, and let us estimate on tiling for the bathroom, the kitchen or any room where pure white sanitary wall treatment appeals to you.



Dr. G. B. Young, Former Health Commissioner, Chicago, said, in the Chicago Daily Tribune:

"If there is one room in the home which should be well furnished, that room is the bathroom. If you have any money to spend, do not put it into expensive furniture for the parlor; spend it in bathroom construction and furnishing.

"Tile floors and wainscoting are non-absorbent, easily kept clean, and in them vermin can find no abiding place. The attractive, well furnished bathroom is a good habit former for the children.

"The poorer classes of the cities are not unclean by nature, but because during their childhood they did not enjoy the facilities of a good bathroom which gave them a chance to keep clean."

PLAIN WHITE WALL TILE.

Plain wall tile in standard size, 6x2 and 6x3 inches, for only 38 cents per square foot. If you will send us a drawing of your bathroom or kitchen or any room in which you want tile wainscoting, showing the location of all doors, windows and offsets, give the dimensions and tell us how high up on the walls you want the tile to come we will be glad to give you a complete estimate of the cost of the tile, including the cap and base. If you want plain wall tile without cap and base you can order as

many square feet as you need right from this page.

No. 63N41150 White Enameled Wall Tile. Price, per square foot.

Wall tile weighs about 5 pounds per square foot, packed. Delivered on the cars at the factory in OHIO.

PURE WHITE FLOOR TILE. Design No. 63N41000.

For instructions how to lay wall and floor tile see our Special Tile Book, which will be mailed postpaid for the asking.



We publish a complete separate Catalog of Floor and Wall Tile for all purposes. In it we show a great many beautiful patterns and designs in fifteen different colors. If interested, write and ask for our Catalog of Floor and Wall Tile. We will mail it to you postpaid on request.

WRITE FOR OUR





Why Not Be Comfortable?

Is your home like either of those shown above in their comfortable warmth? Is there actual SUMMER in every room in your house throughout the long Winter months? Are the floors nice and warm for the children to play on? Is your bathroom warm and comfortable? Are there no cold corners, especially near windows? Can you sit comfortably for any length of time in every room in the house? It does not cost a fortune to have all this. You can have it with either a Hercules Hot Water, Steam or Warm Air Heating System. The price is within your means.

You Are Buying Service

Has it ever occurred to you that what you really buy in a heating plant (as in most other things) is SERVICE? You are interested in the material from which the plant is made, and the design, only in so far as these affect the service the plant will give. Our Hercules Heating Plants include a large enough boiler or furnace and the proper size radiators or registers—in other words, sufficient heating capacity to comfortably warm every nook and corner of your home during the coldest weather. These plants will give you this service, not for one season alone, but for a lifetime. This is guaranteed to you by a plain, straightforward guarantee. This guaranteed includes an offer to take back the entire plant any time within two years if unsatisfactory for any reason whatever. In other words, a Hercules is a reliable, guaranteed system that will furnish plenty of heat in your home for years to come.

Five Big Advantages

You may not have thought of the five big advantages of a Hercules Hot Water or Steam Heating Plant. They are:

- (1) Comfort—Because every nook and corner of your home is heated to the same even degree of warmth.
- (2) Healthfulness—Because there are no cold drafts traveling across the floors. All the air in the house is heated to the same comfortable temperature.
- (3) Cleanliness-No dust, soot or ashes in the living rooms-how different from the ordinary method of heating.
- (4) Economy—Least cost for fuel—water, steam and warm air are the best means known for carrying heat from the fire to the different rooms. Because of their ample capacity, Hercules Plants need not be forced during extremely cold weather.

 (5) Simplicity—Simple in construction, easy to operate.

Easily Installed in Old or New Buildings in the City or on the Farm

Any of our Hercules Heating Sys-Any of our Hercules Heating Systems can be installed in an old building almost as easily as in a new building. The pipes of a hot water or steam system, if left exposed, can be painted or bronzed to match the walls, making them hardly noticeable. With these systems it is not necessary to have city water pressure, as the plant can be filled with a pail and funnel. After it is in use one or two buckets of water is all that it will need during the entire Winter.

Three Principal Modern Heating Systems

Hercules Hot Water and Steam Plants possess in common a number of desirable features. Both use water as the carrier of heat. Water retains heat much better than air—does not lose it as readily when carried a considerable distance. Hot water or steam plants are, therefore, better than warm air furnaces for large houses and other buildings of considerable size.

houses and other buildings of considerable size.

In a hot water system the water in the boller, heated by the fire, rises to the radiators where it gives up its heat and then returns through the return pipes to the boller again. The reason for this circulation of the water is that hot water is lighter than cold water. The hot water in the boiler is forced out and upward by the cooler, heavier water coming down from above.

In the operation of a steam heating system the steam from the boiling water in the boiler rises through the pipes to the radiators. There, on giving up its heat, it is condensed to water again and flows back through the return pipe to the lower part of the boiler.

Hot water heating is recommended for all

Hot water heating is recommended for all buildings where a steady, easily controlled heat is required day after day. The heat is easily regulated from merely warm to extremely hot. Steam has the advantage that quicker, more intense heat can be obtained, and the heat can be carried longer distances. Steam heat is almost universally used in tall city skyscrapers, churches and public buildings.

The Advantages of Warm Air Heating

The principles and action of warm air heating are very simple. Air is heated in the upper part of the furnace and rises through the pipes to the rooms above. It continues to rise while hot, and then as it cools begins to drop again, since cold air is heavier than warm air. The cooled air is conducted through a return air register and passage back to the furnace where it is reheated and again rises.

A very important advantage of the circulation afforded by our system is its healthfulness. Scientists have proved that if the air in a building is kept in motion it will continue fit for breathing purposes much longer than when there is no circulation, even if no fresh air is permitted to enter.

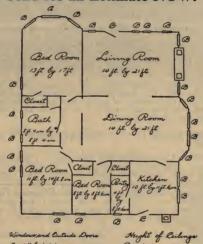
d. Find out what it

Warm air heating systems are particularly recommended for churches, halls and other buildings of only one or two floors, where it is usually necessary to heat up quickly and thorprivate homes, where the furnace can be located in the center and where it is not necessary to run very long pipes; where, furthermore, there are only two or three floors to heat, a warm air plant gives excellent results when installed according to the plans we will furnish.

Warm air plants cost less than hot water or steam plants. The registers take up less space in the rooms than the radiators of the other plants. The continuous circulation of the air in the rooms and the fact that this air is constantly being mixed with fresh air coming in through the doors and windows is an advantage that cannot be overlooked.

We leave the choice to you. If installed according to our plans, drawn specially for your building, we guarantee satisfactory results with any of the three systems.





Send us rough drawings like the above of your basement, first floor and any other floors. Give the dimensions of each room, the heights of the cellings, the location and size of doors, windows, statiways and chimneys. Mark where you would tone for you can leave this fire, registers radiations (or you can leave this and the state of the control of th

Y OU can enjoy all the comforts of an evenly, thoroughly heated home this Winter by installing a pipeless furnace. All the coal, dust and ashes are left in the basement. Only the delightful warmth of the heated air is distributed throughout your home.

Q

A pipeless furnace is especially adapted for heating bungalows or residences where there are large openings between the rooms and open stairways leading to the second floor. Also for heating churches, schools, halls and store buildings where the air



can move freely from one end of the building to the other.

The warm air rises from the register in the floor at the top of the furnace and is distributed throughout the different rooms. When it has given up its heat, it settles to the floor and travels back to the furnace.

The saving in buying a pipeless furnace is evident. It gives thoroughly satisfactory service if the conditions are right. The principle of continuous circulation of the air is most healthful. Our Hummer and Hercules Pipeless Furnaces are easy to set up and take little time to install.

If you have no basement or cellar under your home, just dig out a pit where the furnace is to stand, about 6 or 8 feet square and 6 feet high. This is ample space, and a floor of concrete or bricks will make a good foundation for the furnace to stand upon.

Hummer Pipeless Furnace for Soft Coal or Wood Only.

Takes the cold air in at the side near the bottom of the furnace. Furnished with galvanized iron return air shoe and wood cold air grating, but without return air duct. Cold air can be taken in from the basement, or by making a return air duct of tight fitting boards the return air will be taken from the rooms above and all basement air, dust and ashes excluded.

This furnace has given excellent results under many conditions. However, the construction is not as good as that of our Hercules Pipeless Furnace shown below. To keep out the basement air build the return air shaft above mentioned. This is not required with our Hercules Pipeless.

The Hummer Pipeless Furnace has an all cast iron fire pot and steel radiator. Feed door is especially large to take big chunks of wood or coal. Combustion chamber is likewise large and roomy. Will burn cobs, slack, stumps, knots—any kind of fuel except hard coal or coke. Fire pot is heavily corrugated. Casing has asbestos felt lining and bright tin reflector. Radiator of heavy cold rolled steel plate, riveted like a boiler with cast iron top and cast lower ring. Deep ash pit and triangular revolving grates.

Prices are for furnace complete with casing, black japanned register, return air shoe, oak grating for cold air return duct, shaker handle, poker, dampers, damper pulleys and cement. Shipped from factory in OHIO. Be sure to give height from basement floor to first floor; also information asked in section below the illustration.

	42N2250/3	42N2251/3	42N22521/3
iameter of fire pot. inches	20	22	24
liameter of casing, inches	36	40	44
ize of feed door, inches,	10x14	10x14	12x15
epth of fire pot, inches	101/2	101/2	11
iameter of smoke pipe, inches	8	8	8
ize of register, inches	15x24	18x24	18x30
leating capacity, cubic feet	6,000	10,000	15,000
pproximate shipping wt., about, lbs.	625	800	1,000
rice, complete	\$56.70	\$64.80	\$73.50

Above prices are subject to market changes. Hot Water Coil for Hummer Furnace, \$2.00 extra. If wanted with Gas Burner in addition to coal grate, write for prices.

Hercules Pipeless Furnace

The combination cold and hot air register at the top of this furnace takes the place of the return air duct necessary to build when using the Hummer Furnace described above. The heated air rises through the center part of the register into the room above and circulates where possible, going through doorways and other openings into the different rooms, continuing to rise while warm, falling again as it grows cooler. As it cools it gradually drops down to the big register, passes through the outer rim into the space between the inner and outer casing and down to the bottom of the furnace, where it is reheated and driven up again into the rooms.

The Hercules Pipeless is so constructed that there is a continual air circulation through it. The cool air is constantly being reheated and distributed throughout the building. This furnace will give you satisfactory service for many years.

The furnace is all cast iron with double lined inner casing. Fire pot made in two sections, heavily corrugated and with deep cup joints. Casing has asbestos felt lining and bright tin reflector, saving heat. Deep ash pit and four revolving grate bars. Black japanned register.

Prices are for furnace complete with register, casing, shaker handle, poker, check draft, chains, pulleys, damper chain plate and cement. Shipped direct from factory in OHIO.

Be sure to give height from basement floor to first floor; also the information called for in paragraph at right headed "Read This Before Ordering."

Ordering."	No.	No.	No.
Diameter of fire pot, inches	42N22551/3	42N22561/3	42N2257
	20	40	44
Diameter of inside casing, inches	38	42	40
Diameter of outer casing, inches	46	50	54
Size of feed door, inches	10x11	11x12	11x13
Depth of fire pot, inches	111/2	12	121/2
Diameter of smoke pipe, inches	'8	8	8
Size of register, inches	30x30	30x36	36x36
Heating capacity, cubic feet	8,000	15,000	20,000
Approximate shipping wt., about, lbs.	950	1,160	1,275
Price, complete	\$88.75	\$101.30	\$111.95

Above prices are subject to market changes. Hot Water Coil for Hercules Furnace, \$2.00 extra. If wanted with Gas Burner in addition to coal grate, write for prices.



Read This Before Ordering.

Information We Must Have Before Filling Your Order for a Pipeless Furnace.

For your own protection, we require the following information when you send in your order: Rough drawings of your first and second floor, if there is one, giving dimensions of the rooms and the position and size of all doors or other openings between the rooms. Show where you will place the furnace in the basement and give height from basement floor. This information will enable us to decide whether a pipeless furnace will be suitable to your needs.

Combination Floor \$2\frac{25}{2} and Ceiling Register and Ventilator. Inches.



Carries excess heat from room below to heat room above. Consists of a black floor register with valves, a white ceiling plate and an adjustable sheet metal box connecting the two. Easily and quickly put into position; just cut hole in floor and ceiling place register and ceiling plate in position and hook the two coil springs that hold them together. Adjustable to fit any floor or ceiling from 7 to 12 inches apart. State size wanted.

No. 42N22121/4 Size opening, about, in. 8x10 10x12 12x15 Shpg. wt., about, ibs. 11 13 18 Price, each\$2.75 \$4.20 \$6.40



Hercules Volcano Warm Air Furnaces.

They burn any kind of fuel.

Furnace is made of east fron throughout. Casing is galvanized sheet steel. Illustration above shows construction. Circular cast iron radiator has divided fire travel and perfect tongue and groove gastight joint. Fire pot made in two sections, heavily corrugated and with deep cup joints. Upper casing has asbestos felt lining and bright tin reflector, preventing loss of heat in basement. Deep ash pit and four triangular revolving grate bars.

Frices, complete with casing, shaker handle, poker, check draft, chains, pulleys, regulator plate and cement, but with no pipes of any kind or collars or other fittings. Shipped direct from foundry in OHIO.

Catalog No.	Diameter Fire Pot. Inches	Heating Capacity, Cubic Feet	Shpg. Wt., About, Pounds	Price
42N2 90 42N2 91 42N2 92 42N2 93	20 22 24 26	10,000 15,000 20,000 30,000	775 910 1,115 1,330	\$ 59.30 71.95 82.65 99.40
42N2 194 42N2 195	28 30	40,000 50,000	1,565 1,710	120.55



Hercules	Tropic	Warm	Air	Furnaces.

Catalog No.	Diameter Fire Pot, Inches	Heating Capacity, Cubic Feet	Shipping Weight, Abt., Lbs.	Price, With Casing, as Shown
42N2180	20 22	10.000 15.000	715	\$56.80
42N2181 42N2182	24	20,000	1,040	69.00 78.00
- ACCOUNTY	Parm	All from	oce price	a are cub

ject to market changes.

They burn hard al or coke.

Hercules Tropic Furnaces are the same construction as the Hercules Volcano, except that radiator has steel sides instead of cast iron and a full circle fire travel. See illustration above. Shipped direct from foundry in OHIO.

Size, Price, Price,



odern

Let a Hercules Heat Regulator Tend Your Fire.

Registers and Faces for Floor and Ceiling.

When we quote prices on a complete Warm Air Heat-ing Plant. as explained on page 38, we include all necessary registers, borders and faces, We list registers, borders and faces here for the convenience of customers who desire to use of our complete heating

(E

for the convenience of customers who desire to use them elsewhere than in one of our complete heating plants. These registers and faces are used largely for ventilators and in cellings over stoves to warm rooms on the second floor. Borders are not necessary with white faces when placed in celling or wall. Wall registers and furnace pipe and fittings are listed in our Modern Heating Catalog.

No. 42N2260 Black Registers.
Size 8x10 9x12 10x14 12x15
Price 8x10 9x12 10x14 12x15
No. 42N2261 Black Borders.
No. 42N2261 Black Borders.
No. 42N2262 White Faces.
Size 10x14 12x15
Price 9x12 10x14 12x15
Price 9x12 10x14 12x15
Price 9x12 10x14 12x15
Price 10x14 12x15
Price 9x12 10x14 12x15
Price 10x14

Asbestos Furnace Cement.

Asbestos Paper and Paste.

Asbestos Paper and Paste.

Asbestos Paper. Used for wrapping furnace pipes. About % inch thick. Comes in rolls 36 Inches wide.

No. 42N2202 100-yd. roll. Wt., about 52lbs.
No. 42N2203 50-yardroll. Wt., about 52lbs.
No. 42N2204 25-yardroll. Wt., about 52lbs.
No. 42N2204 Less than 25-yard roll. Yard.
25
Asbestos Paste for applying asbestos paper to furnace pipes and asbestos or wool felt covering to steam and water pipes. Simply mix with cold water.
No. 42N2205 Asbestos Paste. Price, per 2½-1b. package 30c

Hercules Clinker Tongs.

42N2003 Plcks clinkers, stones or slate out of fire pot without disturbing fire.
Shipping weight, about 3½ pounds.

No. 42N2OO4'/4 Simplex Clinker Tongs. Grip the clinkers like an ice tongs. Made of iron with wood hand grip. Length, about 4 feet. Shipping weight, about 4 pounds.\$1.25

Galvanized Iron Smoke Pipe,
Elbows and Angles.
Shipped from our CHICAGO store or direct from factory
In OHIO. 42N2275 42N2276 Angles.

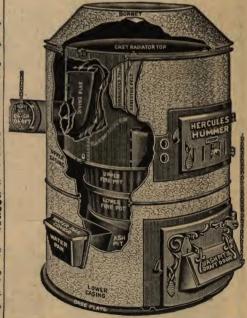
42N2272 Pipe. Price, per Foot 360 380 390 420



Our Positive Water Coil to fit any of our furnaces, \$2.00 extra.

Volcano, Tropic or Hummer Furnaces can be furnished with a GAS BURNER instead of a coal grate. Write for prices.

The prices of furnaces do not include any registers, pipe or fittings. Furnaces bought alone without fittings are guaranteed only as to quality of material and workmanship. We can only guarantee our furnaces to give the proper results when they are put in according to installing plans, which we furnish.



Hercules Hummer Furnaces.

They burn soft coal or wood.

Illustration above shows the construction of the Hummer Furnaces. They are provided with a large fire door, so big chunks of wood or soft coal can be put into the fire pot. The radiator is made of sheet steel with a cast iron top and bottom. Diving fine diverts smoke and gases from top of dome or radiator to chimney. Fire pot, ash pit and casing are same construction as Hercules Volcano Furnace. Shipped from foundry in OHIO.

	Diam. of Fire Pot. Inches	Opening	Height With Casing Inches	cluding	Heating Capac- ity, Cubic Feet	Price. With Casing. as Illus- trated
42N2175	20	10x14	56	600	8,000	\$48.80
42N2176	22	10x14	59	750	15,000	61.10
42N2177	24	12x15	62	875	21,000	70.65

Prices subject to market changes.



HERCULES Plain Pattern Radiators for Steam and Hot Water.



Hercules Is Our Own Trade Mark, Registered in U. S. Patent Office

Hercules is Our Own Trade Mark, Registered in U. S. Patent Office.

Good quality cast iron, properly machined and tested. Graceful, plain design. The smooth flat surfaces, leaving no hollows
or corners for dust and dirt, appeal to the good housekeeper.
While only three and five-column radiators are listed below,
we can also furnish single and two-column radiators. For full
information, write for our Modern Heating Systems Catalog.
When ordering be sure to state whether radiators are wanted
for steam or hot water, number of sections, height and whether
three or five-column. Also state size and positions of tappings,
otherwise tappings will be as below. Pipe will be found on
page 23.

STEAM RADIATORS ARE TAP-PED AS FOLLOWS, UNLESS OTHERWISE REQUESTED.

Up to 24 feet....1 -inch supply 24 ft. to 50 ft..1¼-inch supply 50 feet to 100 ft..1½-inch supply Over 100 feet...,2 -inch supply

HOT WATER RADIATORS ARE TAPPED AS FOLLOWS, UN-LESS OTHERWISE RE-QUESTED.

Up to 50 ft. 1 -in. feed and return 50 to 75 ft. 1¼-in. feed and return Over 75 ft. 1½-in. feed and return

List	of Sizes	Hercule Radiator	s Three-0	Column	List	of Sizes,	Hercules Radiators	Five-Col	umn	
27. 0		SQUARE	FEET OF SURFA	F HEAT-	27 .0		SQUARE FEET OF HEAT ING SURFACE			
No. of Sec- tions	Total Length, Inches	38-Inch Height, 5 Sq. Ft, per	26-Inch Height, 3% Sq. Ft. per	20-Inch Height, 2¾ Sq. Ft. per	No. of Sec- tions	Total Length, Inches	per	Height, 5 Sq. Ft. per	per	
-		Section	Section	Section		2.0	Section	Section	Section	
2 3 4 5 6 7 8 9	5 7 ¹ / ₂ 10 12 ¹ / ₂ 15 17 ¹ / ₂ 20 22 ¹ / ₂ 25	10 15 20 25 30 35 40 45 50	7½ 11¼ 15 18¾ 22½ 26¼ 30 33¾ 37½	5½ 8¼ 11 13¾ 16½ 19¼ 22 24¾ 27½	2 3 4 5 6 7 8 9	6 9 12 15 18 21 21 24 27 30	12 18 24 30 36 42 48 54 60	10 15 20 25 30 35 40 45 50	8 12 16 20 24 28 32 36 40	
Steam. square f 42N2 Hot Wat	Price, per foot 2055½ ter. Price, are foot	380	460	520 -530	Steam. square 42N2 Hot Wa	Price, per foot	500	56c	600	
	ed from f									

Hot Water Circulator.

Union Elbow for Hot Water

Hot Water Radiator Valves.

No. 42N2O85 Solid brass nickel plated, with union; one-half turn opens valve to full capacity.

Shog. Wt.

Size, Abt., Price, Lead, 34, 212, \$1.93

Altitude Gauge.

No. 42N2160
Our Hercules Hot
Water Circulator
adds to a hot water
heating plant the
quick heating ability
of steam heat, and
25 per cent extra
capacity. Made of
phospor bronze, brass
and vulcanized rubber, practically rustproof. Size tappings,
1 inch. Shipping wt.,
about 4 pounds.
Price\$9.50

Radiators.



Galvanized Expansion Tanks.

Strongly made of steel, galvanized inside and out. Prices include water gauges complete with cocks and guards, but not the inlet and outlet fittings shown. Size of inlet and overflow, 1 inch. 1 inch.

No. 42N207014

Cap., Gal., About	Size. Inches	Square Feet of Radiation	Wt., About, Lbs.	Price, Including Gauge
8 10 15 20 26 32	10x20 12x20 12x30 14x30 16x30 16x36	0 to 320 320 to 400 400 to 600 600 to 800 800 to 1,040 1,040 to 1,280	31 40 48 60 74 88	\$ 8.80 9.35 10.40 13.95 15.60
C	D.	1.		

Steam Radiator Valves. No. 42N2090 Nickel plated brass with ground joint union and Jenkins

disc.



Adjustable Nickel Plated Ceiling and Floor Plates.

No. 42N2147 Can be placed on the pipes after they are in position,
Size, in., % 1 1½ 1½ 2 58pg, wt.,
abt., lbs. ½ ½ ½ ½ ½ ½ %
Price ... 11½ 130 15c 16c 18c

Compression Air Valve With Key.

No. 42N2|3| With I shield, solid brass, mickel Shipping weight, 2 ounces. Size, 1/8 inch.



हिल्ला।

HERCULES IMPROVED SECTIONAL BOILERS range in capacity from 300 to 1.750 square feet hot water radiation and 150 to 1,050 square feet steam radiation. Have all the advan-tages of the round boiler—compact fire pot and simple construction, while they also have the superior advan-tages of the sectional boiler—long fire tages of the sectional boiler—long fire travel, increased heating surface and correct proportions between grate and heating surfaces. Fire pot deep, holding enough coal to maintain proper amount of heat for twelve hours. Each boiler thoroughly tested before leaving factory. Dimensions shown below may vary slightly, Read further description below. All boilers shipped from factory in WESTERN NEW YORK YORK.

The illustration at the left shows the internal construction of No. 42N20241/3 and No. 42N20251/3 Boilers.

Our Steam Boilers are furnished complete with all steam trimmings, such as pressure gauge, water gauge, damper regulator and safety valve. These are not necessary with hot water boilers. All boilers are furnished complete with firing tools, including hoe, poker, rake and flue brush with rod. All boilers tapped for inlet and outlet pipes, altitude gauge and thermometer.

Nos. 42N2022½ to 42N2025½ Boilers are made up and shipped in two parts; base and grates in one, sections in other. Can be taken through openings as small as 26x36 inches.

Nos. 42N2022½ to 42N2025½ Boilers are not shipped with the sections put together as they would be too heavy to handle if shipped that way. The sections are separate and all trimmings are packed in a box. These boilers are of the double fire travel pattern, which adds much to their efficiency.

No. 42N2O221/3 Steam Bollers.

No. 42N20231/3 Hot Water Bollers.

No.	Size of Fire Pot. Inches	Size of Smoke Pipe, In.	Over All		Flow and Return, Tappings	Rating, Hot Water	Rat- ing, Steam	Price, Hot Water	Price. Steam
134 135	13½x12 13½x15		49½ 49½	23x24 23x28	2-2 in. 2-2 in.	300 400	150 225	\$41.15	\$47.15
, No. 42N2O241/3 Steam Boilers. No. 42N2O251/3 Hot Water Boilers.									

No. 42N20261/3 Steam Bollers.

No. 42N2O271/3 Hot Water Bollers.

ALL BOILER PRICES QUOTED ARE SUBJECT TO MARKET CHANGES. PRICE OF LARGER SIZE BOILERS QUOTED ON APPLICATION.



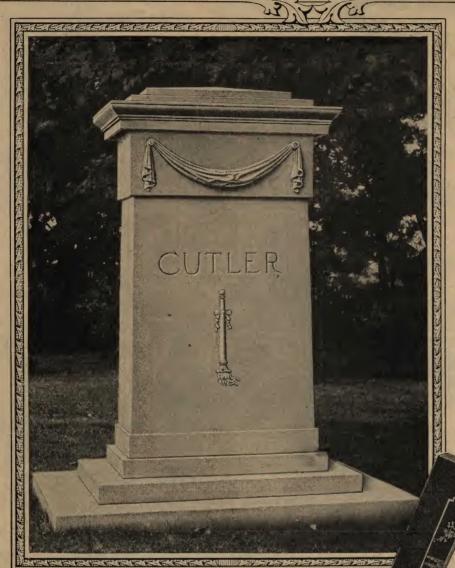
Hot Water Thermometer. No. 42N2080 For hot water systems. Registers up to 260 degrees Fahrenheit. Has 1/2-inch pipe thread. Shipping weight, about

...45c

11/2 pounds. Price



A DIGNIFIED SYMBOL OF HONOR AND RESPECT



T SOME time there falls to most of us the duty of providing a fitting tribute to the memory of those who have passed on, a token of our own loving esteem, and at the same time a lasting monument that will fittingly preserve their memory to coming generations.

We respectfully offer our assistance in performing this worthy task.

SEARS, ROEBUCK AND CO.

WE OFFER for your consideration a complete selection of marble and granite monuments, tombstones, grave markers, cemetery fencing and grave enclosures of very high quality. At the same time our prices are far lower than you would expect for the high quality.

Write for our Catalog of Monuments and Tombstones. Ask for Catalog No.

572N.

EXPRESS RATES

Tables showing the Express Rates per 100 pounds on goods shipped from Chicago to a number of cities in each state, these cities being used as a basis for figuring rates for all the towns in the immediate vicinity of each city. Your express agent will tell you the exact rates from Chicago to your home town and give you full information in reference to their delivery service. If there is no express agent at your shipping point you must send money to prepay express charges. If there is an agent you can pay the express charges when shipment reaches you. It is necessary to prepay only when there is no agent at your station.

HOW TO FIGURE EXPRESS CHARGES

First estimate the weight of goods you are ordering; then find the rate per 100 pounds by express to your nearest city in the Table of Rates below; then consult the Scale of Express Charges, following the line for the weight of your goods to the

EXPRESS RATES PER 100 POUNDS TO CITIES IN EACH STATE.

From Chicago to	Express, per 100 Pounds.	From Chicago to	Express, per 100 Pounds.	From Chicago to	Express. per 100 Pounds.	From Chicago to	Express, per 100 Pounds,	From Chicago to	Express, per 100 Pounds,
ALABAMA— Birmingham Brewton Mobile Montgomery ARIZONA— Phoenix	\$2.64 3.13 3.24 2.86	GEORGIA— Atlanta Macon Savannah Waycross IDAHO— Itolse Pocatello	\$2.86 3.13 3.52 3.46 8.63 7.70	MARYLAND— Baltimore MASSACHUSETTS— Boston MICHIGAN— Bessemer Detroit	\$2.47 2.75 2.47 1.37	NEW JERSEY— Atlantic City. Trenton NEW MEXICO— Gallup Santa Fe. Silver City. NEW YORK—	\$2.64 2.64 6.87 5.22 7.15	SOUTH DAKOTA— Aberdeen Bellefourche Sloux Falls Watertown TENNESSEE— Jackson Knoxytile	\$3.46 4.18 2.69 3.02 2.14 2.64
Tucson ARKANSAS— Arkansas City. Fort Smith. Hot Springs. Little Rock. Texarkana CALIFORNIA—	7.86 2.75 3.19 3.19 2.91 3.46	Caterio ILLINOIS— Cairo Joliet Rock Island Springfield INDIANA— Evansville Fort Wayne	1.50 .60 1.00 1.15	Grand Rapids. Traverse City. MINNESOTA— Alikin Crookston Duluth Grand Rapids. Minneapolis Winona	1.10 1.76 2.91 3.35 2.64 3.02 2.20 1.87	Albany Buffalo New York Syracuse NORTH CAROLINA— Asheville Italeigh Wilmington	2.53 1.98 2.64 2.20 2.86 3.24 3.52	Memphis Nashville TEXAS— II Paso Port Worth Ilouston UTAH— Marysvale	2.31 1.92 6.54 4.23 4.51 8.03
Bakersfield Los Angeles San Francisco COLORADO— Denver Durango Grand Junction	9.79 9.79 10.23 4.62 6.49 6.05	Indianapolis Richmond South Bend 10WA— Des Moines Fort Dodge Sioux City KANSAS—	1.10 1.37 .82 1.98 2.14 2.69	MISSISSIPPI— Il attiesburg Jackson Natchez MISSOURI— Kansas City St. Louls Springfield	3.02 2.91 3.19 2.31 1.54 2.47	NORTH DAKOTA— Bismarck Pargo Grand Forks Minot Williston OHIO— Chelnnati	4.01 3.19 3.57 4.18 4.51	Sait Lake City. VERMONT— Jonupelier VIRGINIA— Marion Richmond Rocky Mount. WASHINGTON—	7.26 2.75 2.69 2.86 2.86 9.46
Iulesburg Leadville CONNECTICUT— Ilartford DELAWARE— Dover DISTRICT OF	4.07 5.50 2.80 2.53	Dodge City Great Bend Kansas City Topeka Wichita KENTUCKY— Frankfort Hopkinsville	3.90 3.46 2.31 2.47 3.46 1.54	MONTANA— Billings Clasgow Ilavre Ilelena Kallspell Miles City. NEBRASKA—	5.94 5.22 6.10 7.20 7.48 5.17	Columbus Toledo OKLAHOMA— Okiahoma City OREGON— Portland PENNSYLVANIA— Harrisburg	3.79 9.73 2.36	Seattle Spokane WEST VIRGINIA— Charleston Elikins Wheeling WISCONSIN— Ashland	2.03 2.42 1.76 2.47
COLUMBIA— Washington FLORIDA— Jacksonville Miami Pensacola Tallalassee Tampa	2.47 3.79 5.00 3.41 3.52 4.40	Louisville Morehead LOUISIANA— Lake Charles New Orleans Shreveport MAINE— Bangor	1.37 1.76 3.79 3.41 3.57 3.24	Lincoln North Platte. Omaha NEVADA— Austin Carson City. NEW HAMPSHIRE— Concord	2.69 3.74 2.47 8.96 9.51 2.80	Philadelphia Pitisburgh RHODE ISLAND— Providence SOUTH CAROLINA— Charleston Greenville Sumter	2.42 1.87 2.80 3.74 3.24 3.52	J.a Crosse Madison Marinette Miwawikee WYOMING— Cheyenne Green Itiver Lander Sheridan	1.26 1.92 .99 4.56 6.38 5.88 5.17

SCALE OF EXPRESS CHARGES BASED ON THE RATE PER 100 POUNDS.

Rate per	100 lbs	\$0.60	\$0.82	\$0.99	\$1.00	\$1.10	\$1.15	\$1.26	\$1.37	\$1.48	\$1.50	\$1.54	\$1.65	\$1.76	\$1.81	1\$1.87	1\$1.92	\$1.98	\$2.03	\$2.14	\$2.20
CHAR	GES ON of 1 lb	26	.29	.29	.26	.29	.26	29	29	29	26			.29	.29	.29	.29	.30	,30	.30	.30
Package o	of 2 lbs	.26 .26 .27	.29	.29 .29 .31	.26	.29	.27	.29	.29	.29	.26 .27 .31	.29 .30 .34	.29	.31	.31	.31	.31	.31	.31	.31	.31
	of 5 lbs	.27	.30	.31	.29	.32	.29	.32	.33	.33	.31	.34	.34	.35 .42	.35	.35	.35	.36	.36	.36	.37
	of 10 lbs of 15 lbs	.28	.35	.38	.36	.40	.38	.42	.44	.45	.44	.46	48	49	.43	52	.44	.44	.45 .54	.46	.46
Package (of 20 lbs.:.	.32	.38	.42	.40	.44	.43	.47	.49	.52	.50	.46	.55	.57	.58	.59	60	.62	.63	.65	.66
	of 25 lbs of 30 lbs	.34	.41	.45	.44	.48	.47	.52	.55	.57	.56	.59	.48 .55 .62 .68	.49 .57 .65 .71	.66	.67	.68	70	.71 .80	1 . (4	.76
	of 35 lbs	.37	.46	.53	.51	.56	.56	62	.66	.69	.69	.71	76	79	.81	.75	.85	.78	.89	.84	.85 .95
Package	of 40 lbs	.39	.49	.56	.55	60	.61	.67	.71	.76	.75	.78	.76 .82 .89	.87	.89	.91	.93	.96	.98 1.07	1.02	1.04
	of 45 lbs	.41	•.52	.59	.59	.65	.65	.71	.77	.81	.81	.85		.95		.99	11.01	1.04			1.14
	100 lbs	\$2.31	\$2.36	\$2.42	\$2.47	\$2.53	\$2.64	\$2.69	\$2.75	\$2.80	\$2.86	\$2.91	\$3.02	\$3.13	\$3.19	\$3.24	\$3.35	\$3.41	\$3.46	\$3.52	\$3.57
	of 1 lb	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.31	.31	.31	.31	.31	.31	.31	.31
Package		.32	.32	.32	.32	.32	.32	.32	.32	.33	.33	.33	.33	.33	.33	.33	.34	.34	.34	.34	.34
Package (of 5 lbs	.37	.37	.38	.38	.38	.40	.40	.40 .	.40	.41	.41	.41	.42	.42	.42	.43	,43	.43	.44	.44
	of 10 lbs of 15 lbs	.47 .58	.48	.48 .59	.49	.49	.51	.52	.52	.53 .65	.53	.54	.55	.56	.56	.57	.58	.58	.59 .75	.59	.60
	of 20 lbs	.68	.69	.70	71	73	.75	.76	.65 .77	.78	.79	.80	.68 .82	.85	.86	.87	.89	.90	.91	.92	.93
Package	of 25 lbs	.78	.79	.81	.82	.84	.87	.88	.89	.90	.92	.93	.96	.99	1.00	1.01	1.04	1.06	1.07	-1.09	1.10
	of 30 lbs of 35 lbs	.88	.90 1.00	.91 1.02	1.04	1.07	1.10	1.00 1.12	1.01 1.14	1.03 1.15	1.04	1.07	1.10 1.23	1.13 1.28	1.14 1.30	1.17	1.20 1.35	1.21 1.37	1.23 1.39	1.24 1.41	1.26
	of 40 lbs	1.09	1.11	1.13	1.15	1.18	1.22	1.34	1.26	1.29	1.31	1.33	1.37	1.42	1.44	1.46	1.51	1.53	1.55	1.57	1.43 1.59
	of 45 lbs	1.19	1.21	1.24	1.26	1.29	1.34	1.36	1.39	1.41	1.44	1.46	1.51	1.56	1.58	1.61	1.66	1.68	1.70		1.76
2 11011112	OZ ZO TIDOTET	-	The second second																The Real Property lies, the Person lies,		
	100 lbs	\$3.74	\$3.79	\$3.90	\$4.01	\$4.07	(4.18	\$4.23	\$4.40	\$4.51	\$4.56	\$4.62	\$5.00			-		-		\$6.10	
Rate per CHAR	100 lbs GES ON	\$3.74		\$3.90										\$5.17	\$5.22	\$5.50	\$5.88	\$5.94	\$6.05	\$6.10	\$6.38
Rate per CHAR Package	100 lbs GES ON of 1 lb	\$3.74	.31	\$3.90	.31	.31	.32	.32	.32	.32	.32	.32		\$5.17	\$5.22	\$5.50	\$5.88	\$5.94	\$6,05	\$6.10	\$6.38
Rate per CHAR Package Package Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs	\$3.74 .31 .34 .45	.31 .34 .45	\$3.90 .31 .35 .45	.31 .35 .46	.31 .35 .46	.32 .35 .47	.32 .35 .47	.32 .35 .48	.32 .36 .48	.32 .36 .48	.32 .36 .49		\$5.17 .32 .37	\$5.22 .32 .37 .52	\$5.50 .33 .37 .54	\$5.88 .33 .38 .55	\$5.94 .33 .38 .56	\$6.05 .33 .38 .56	\$6.10 .33 .40 .56	\$6.38 .34 .40 .58
Rate per CHAR Package Package Package Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 10 lbs	\$3.74 .31 .34 .45 .62	.31 .34 .45 .63	\$3.90 .31 .35 .45 .64	.31 .35 .46 .65	.31 .35 .46 .65	.32 .35 .47 .66	.32 .35 .47 .67	.32 .35 .48 .68	.32 .36 .48 .69	.32 .36 .48 .70	.32 .36 .49 .70	.32 .37 .51	\$5.17 .32 .37 .52 .76	\$5.22 .32 .37 .52 .77	\$5.50 .33 .37 .54 .79	.33 .38 .55 .84	\$5.94 .33 .38 .56 .84	\$6.05 .33 .38 .56 .85	.33 .40 .56 .86	\$6.38 .34 .40 .58 .88
Rate per CHAR Package Package Package Package Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 10 lbs of 15 lbs	\$3.74 .31 .34 .45	.31 .34 .45 .63 .80	\$3.90 .31 .35 .45 .64 .81	.31 .35 .46 .65	.31 .35 .46 .65 .85	.32 .35 .47 .66 .86	.32 .35 .47 .67 .87	.32 .35 .48 .68 .89	.32 .36 .48 .69 .91	.32 .36 .48 .70 91	.32 .36 .49 .70 .92	.32 .37 .51	\$5.17 .32 .37 .52 .76 1.01	\$5,22 .32 .37 .52 .77 1.01	.33 .37 .54 .79 1.06	.33 .38 .55 .84 1.11	\$5.94 .33 .38 .56 .84 1.12	\$6.05 .33 .38 .56 .85 1.14	\$6,10 .33 .40 .56 .86 1.14	\$6.38 .34 .40 .58 .88 1.19
Rate per CHAR Package Package Package Package Package Package Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 20 lbs of 25 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14	.31 .34 .45 .63 .80 .98 1.15	\$3.90 .31 .35 .45 .64 .81 1.00 1.18	.31 .35 .46 .65 .84 1.02 1.21	.31 .35 .46 .65 .85 1.03 1.22	.32 .35 .47 .66 .86 1.06 1.25	.32 .35 .47 .67 .87 1.07 1.26	.32 .35 .48 .68 .89 1.10 1.31	.32 .36 .48 .69 .91 1.12 1.33	.32 .36 .48 .70 91 1.13 1.34	.32 .36 .49 .70 .92 1.14 1.36	.32 .37 .51 .75 .98 1.22 1.45	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69	.33 .38 .56 .85 1.14 1.43 1.72	\$6.10 .33 .40 .56 .86 1.14 1.44 1.73	.34 .40 .58 .88 1.19 1.50 1.80
Rate per CHAR Package of	100 lbs GES ON of 1 lb of 2 lbs of 10 lbs of 15 lbs of 20 lbs of 25 lbs of 30 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31	.31 .34 .45 .63 .80 .98 1.15 1.33	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36	.31 .35 .46 .65 .84 1.02 1.21 1.40	.31 .35 .46 .65 .85 1.03 1.22 1.41	.32 .35 .47 .66 .86 1.06 1.25 1.44	.32 .35 .47 .67 .87 1.07 1.26 1.46	.32 .35 .48 .68 .89 1.10 1.31 1.51	.32 .36 .48 .69 .91 1.12 1.33 1.54	.32 .36 .48 .70 .91 1.13 1.34 1.56	.32 .36 .49 .70 .92 1.14 1.36 1.57	.32 .37 .51 .75 .98 1.22 1.45 1.69	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74	\$5.22 .37 .52 .77 1.01 1.26 1.51 1.76	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96	.33 .38 .56 .84 1.12 1.41 1.69 1.97	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00	\$6.10 .33 .40 .56 .86 1.14 1.44 1.73 2.02	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10
Rate per CHAR Package Package Package Package Package Package Package Package Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 20 lbs of 25 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66	.31 .34 .45 .63 .80 .98 1.15	\$3.90 .31 .35 .45 .64 .81 1.00 1.18	.31 .35 .46 .65 .84 1.02 1.21 1.40 1.58	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.61	.32 .35 .47 .66 .86 1.06 1.25 1.44 1.64	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.66	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76	.32 .36 .48 .70 .91 1.13 1.34 1.56 1.77	.32 .36 .49 .70 .92 1.14 1.36 1.57 1.79	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.58 1.210 2.36	\$5.88 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69 1.97 2.25	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.30	\$6.10 .33 .40 .56 .86 1.14 1.44 1.73 2.02 2.31	\$6.38 .34 .40 .58 88 1.19 1.50 1.80 2.10 2.41
Rate per CHAR Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 10 lbs of 20 lbs of 25 lbs of 30 lbs of 35 lbs of 40 lbs of 45 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84	.31 .34 .45 .63 .80 .98 1.15 1.33 1.51 1.68 1.86	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.73 1.90	.31 .35 .46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.61 1.79 1.98	.32 .35 .47 .66 .86 1.06 1.25 1.44 1.64 1.84 2.03	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.66 1.86 2.06	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76 1.97 2.18	.32 .36 .48 .70 91 1.13 1.34 1.56 1.77 1.99 2.20	.32 .36 .49 .70 .92 1.14 1.36 1.57 1.79 2.01 2.23	.32 .37 .51 .75 .98 1.22 1.45 1.69	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47	\$5,22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84 2.10 2.36 2.63	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52 2.79	\$5.94 .33 .38 .56 .84 1.12 1.69 1.97 2.25 2.54 2.83	.33 .38 .56 .85 1.14 1.43 1.72 2.00 2.30 2.58 2.87	\$6.10 .33 .40 .56 .86 1.14 1.73 2.02 2.31 2.61 2.89	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10 2.41 2.72 3.03
Rate per CHAR Package (Rate per	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 10 lbs of 20 lbs of 23 lbs of 25 lbs of 30 lbs of 30 lbs of 40 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84	.31 .34 .45 .63 .80 .98 1.15 1.33 1.51 1.68	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.73	31 .35 .46 .65 .84 1.02 1.21 1.40 1.58 1.77	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.61 1.79	.32 .35 .47 .66 .86 1.06 1.25 1.44 1.64	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.66 1.86	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76	.32 .36 .48 .70 91 1.13 1.34 1.56 1.77 1.99	.32 .36 .49 .70 .92 1.14 1.36 1.57 1.79 2.01	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47	\$5,22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84 2.10 2.36 2.63	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52 2.79	\$5.94 .33 .38 .56 .84 1.12 1.69 1.97 2.25 2.54 2.83	.33 .38 .56 .85 1.14 1.43 1.72 2.00 2.30 2.58 2.87	\$6.10 .33 .40 .56 .86 1.14 1.44 1.73 2.02 2.31 2.61	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10 2.41 2.72 3.03
Rate per CHAR CHARAGE Package Chackage	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 15 lbs of 15 lbs of 20 lbs of 25 lbs of 35 lbs of 45 lbs 100 lbs GES ON	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84	.31 .34 .45 .63 .80 .98 1.15 1.33 1.51 1.68 1.86	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.73 1.90 \$6.87	31 .35 .46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96	,31 ,35 ,46 ,65 ,85 1.03 1.22 1.41 1.61 1.79 1.98	.32 .35 .47 .66 .86 1.06 1.25 1.44 1.84 2.03	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.86 2.06	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76 1.97 2.18	.32 .36 .48 .70 91 1.13 1.34 1.56 1.77 1.99 2.20	.32 .36 .49 .70 .92 1.14 1.36 1.57 1.79 2.01 2.23	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 2.10 2.36 2.63	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52 2.79 \$9.51	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69 1.97 2.25 2.54 2.83	\$6.05 .33 .38 .56 .85 1.14 1.42 2.00 2.30 2.58 2.87	\$6.103 .33 .40 .56 .86 1.14 1.73 2.02 2.31 2.61 2.89	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10 2.41 2.72 3.03
Rate per CHAR Package of	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 10 lbs of 20 lbs of 25 lbs of 30 lbs of 30 lbs of 40 lbs of 45 lbs 100 lbs of 45 lbs of 45 lbs of 46 lbs of 47 lbs of 48 lbs of 49 lbs of 49 lbs of 49 lbs of 41 lbs of 11 lb	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84 \$6.49	.31 .34 .45 .63 .80 .98 1.15 1.33 1.51 1.68 1.86 \$6.54	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.74 1.90 \$6.87	31 35 46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.61 1.79 1.98 \$7.20	.32 .35 .47 .66 .86 1.06 1.25 1.44 1.64 1.84 2.03	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.66 1.86 2.06	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13 \$7.70	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76 1.97 2.18 \$7.86	32 36 48 70 91 1.13 1.34 1.56 1.77 1.99 2.20 \$8.03	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63	\$5.17 .32 .37 .52 .50 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84 2.10 2.36 2.63 \$9.46	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.79 \$9.51	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69 1.97 2.25 2.25 2.54 2.83 \$9,73	\$6.05 .33 .38 .56 55 1.14 1.43 1.72 2.00 2.30 2.58 2.87 \$9.79	\$6.103 .33 .40 .56 .56 .1.14 1.44 1.73 2.02 2.31 2.61 2.89	\$6.38 .34 .40 .58 .88 1.19 1.50 2.10 2.41 2.72 3.03
Rate per CHARC Package of Rate per	100 lbs GES ON of 1 lb of 5 lbs of 5 lbs of 15 lbs of 15 lbs of 15 lbs of 20 lbs of 20 lbs of 25 lbs of 35 lbs of 40 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 5 lbs of 5 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84 \$6.49	.31 .34 .45 .63 .80 .98 .1.15 1.33 1.51 1.68 1.86 \$6.54	\$3.90 31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.73 1.73 1.90 \$6.87	31 35 46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.69 1.98 \$7.20	32 35 47 .66 .86 1.06 1.25 1.44 1.84 2.03 \$7.26	.32 .35 .47 .67 .87 1.07 1.26 1.46 1.86 2.06 \$7.48	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13 \$7.70	.32 .36 .48 .69 .91 1.12 1.33 1.54 1.76 2.18 \$7.86	32 36 48 .70 91 1.13 1.34 1.56 1.77 1.99 2.20 \$8.03	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .70	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .36 .45 .70	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.58 2.10 2.36 2.63 \$9.46 .46 .74	\$5.88 .33 .38 .55 .81 1.40 1.67 1.96 2.23 2.52 2.79 \$9.51 .36 .46 .74	\$5.94 .33 .38 .56 .56 1.12 1.41 1.69 1.97 2.25 2.54 2.83 \$9,73 .37 .46 .75	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.30 2.58 2.87 \$9.79	\$6.10 .33 .40 .56 .86 1.14 1.73 2.02 2.31 2.61 2.89 \$10.23	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10 2.41 2.72 3.03
Rate per CHAR Package Chakage Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 15 lbs of 15 lbs of 20 lbs of 20 lbs of 25 lbs of 25 lbs of 35 lbs of 45 lbs 100 lbs GES ON of 1 lb of 5 lbs of 5 lbs of 1 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84 \$6.49 .34 .40 .58 .89	31 34 45 .63 .80 .98 1.15 1.31 1.68 1.86 \$6.54	\$3.90 31 .35 .45 .64 .81 1.00 1.18 1.34 1.73 1.90 \$6.87 34 .41 .60 .93	31 35 46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15	31 35 46 .65 .65 .1.03 1.22 1.41 1.61 1.79 1.98 \$7.20 34 .42 .62 .97	32 35 47 .66 .86 1.06 1.25 1.44 1.64 1.84 2.03 \$7.26 34 .42 .63 .97	32 35 47 .67 .87 1.07 1.26 1.46 1.66 1.86 2.06 \$7.48	32 35 48 .68 .89 1.10 1.31 1.51 1.72 2.13 \$7.70 35 .42 .65 1.01	32 36 48 .69 .91 1.12 1.33 1.54 1.76 1.97 2.18 \$7.80	32 36 48 .70 91 1.13 1.34 1.56 1.77 1.99 2.20 \$8.03	32 36 49 .70 .92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .41 .41 .42 .44 .44 .44 .44 .44 .44 .44	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .45 .45 .45 .15 .14	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 2.10 2.36 2.63 \$9.46 .46 .46 .41 1.19	\$5,88 .33 .38 .55 .54 1.11 1.40 1.67 1.96 2.23 2.52 2.79 \$9,51 .36 .46 .46 .42 .42 .43	\$5.94 .33 .38 .56 .84 .1.12 1.41 1.69 1.97 2.25 2.54 2.83 \$9.73 .37 .46 .75 .75 .122	\$6,05 .33 .38 .56 .56 .85 1.14 1.43 2.200 2.30 2.58 2.87 \$9,79 .46 .75 1.22	\$6.103 .33 .40 .56 .86 1.14 1.73 2.02 2.31 2.61 2.89 \$10.23 .37 .47 .77 1.26	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.41 2.72 3.03
Rate per CHAR Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 15 lbs of 20 lbs of 25 lbs of 35 lbs of 45 lbs f 40 lbs GES ON of 1 lb of 25 lbs of 45 lbs of 45 lbs of 45 lbs of 100 lbs of 20 lbs of 100 lbs of 1 lb of 1 lbs of 1 lbs of 1 lbs of 10 lbs of 15 lbs of 15 lbs	\$3.74 .31 .34 .45 .62 .79 .97 1.14 1.31 1.48 1.66 1.84 \$6.49	.31 .34 .45 .63 .80 .98 .1.15 1.33 1.51 1.68 1.86 \$6.54	\$3.90 31 .35 .45 .64 .81 1.00 1.18 1.36 1.54 1.73 1.73 1.90 \$6.87	31 35 46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15	.31 .35 .46 .65 .85 1.03 1.22 1.41 1.69 1.98 \$7.20	32 35 47 .66 .86 1.06 1.25 1.44 1.84 2.03 \$7.26	32 35 47 67 87 1.07 1.26 1.46 1.66 1.66 1.86 2.06 \$7.48	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13 \$7.70 .35 .42 .65 1.01 1.39	32 36 48 .69 .91 1.12 1.33 1.54 1.76 2.18 \$7.86 35 .43 .65 1.03 1.41	32 36 48 .70 .91 .1.13 .1.34 .1.56 .1.77 .1.99 .2.20 \$8.03 .43 .66 .66 .1.04 .1.04 .1.04	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52 35 44 .68 1.10 1.51	32 37 51 75 98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63 36 .44 .69 1.11 1.53	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .70	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 2.00 2.25 2.50 \$8.96 .45 .70 1.14 1.57	\$5,50 .33 .37 .54 .79 1.06 1.32 1.58 2.10 2.36 2.63 \$9,46 .46 .74 1.19 1.65	\$5,88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52 2.79 \$9,51 .36 .46 .74 1.20 1.66	\$5.94 .33 .38 .56 .56 1.12 1.41 1.69 1.97 2.25 2.54 2.83 \$9,73 .37 .46 .75	\$6,05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.30 2.58 2.87 .46 .75 1.22 1.70	\$6.103 .33 .40 .56 .86 1.14 1.73 2.02 2.31 2.61 2.89 \$10.23 .47 .77 1.26 1.77	\$6.38 .34 .40 .58 .88 1.19 1.50 1.80 2.10 2.41 2.72 3.03
Rate per CHAR Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 10 lbs of 20 lbs of 25 lbs of 35 lbs of 35 lbs of 45 lbs 100 lbs GES ON of 1 lb of 5 lbs of 5 lbs of 5 lbs f 10 lbs of 20 lbs of 45 lbs f 45 lbs of 5 lbs of 20 lbs of 20 lbs of 20 lbs of 15 lbs of 15 lbs of 20 lbs	\$3.74 .31 .34 .45 .62 .79 .97 .11 1.48 1.66 1.84 \$6.49 .34 .40 .58 .89 1.21 1.52 1.83	31 34 34 45 63 80 .98 1.15 1.33 1.51 1.68 1.86 \$6.54 34 .40 .58 .90 1.21 1.53 1.54 .86	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.73 1.90 \$6.87 .34 .41 .60 .93 1.26 1.59 1.26 1.92	31 35 46 65 84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15 \$41 .62 .96 1.31 1.69 1.31	31 35 46 65 1.03 1.22 1.41 1.61 1.79 \$7.20 \$7.20 34 42 .97 1.31 1.66 2.00	32 35 47 66 1.06 1.25 1.44 1.84 1.84 2.03 \$7.26 34 .42 .63 .97 1.32 2.02	32 35 47 67 87 1.07 1.26 1.46 1.66 2.06 \$7.48 35 42 64 99 1.35 1.72 2.08	.32 .35 .48 .68 .68 1.10 1.51 1.72 1.92 2.13 \$7.70 .35 .42 .65 1.01 1.39 1.76 2.13	32 36 48 69 91 1.12 1.33 1.54 1.76 1.97 2.18 \$7.80 35 43 .65 1.03 1.41 1.79 2.17	32 .36 .48 .70 .91 1.13 1.34 1.56 1.77 1.99 2.20 \$8.03 .35 .43 .66 1.04 1.44 1.83 2.21	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52 35 44 68 1.10 1.51 1.92 2.33	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63 .36 .44 .69 1.11 1.53 1.95 2.36	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .47 1.12 1.55 1.98 2.41	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .45 .70 1.14 1.57 2.01 2.24	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84 2.10 2.36 2.63 \$9.46 .46 .46 .47 1.19 1.65 2.17 2.57	\$5,88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.52 2.79 \$9,51 .36 .46 .46 .40 1.66 2.12 2.59 2.59 2.59	\$5.94 .33 .38 .56 .84 1.12 1.49 1.97 2.25 2.54 2.83 \$9.73 .37 .46 .75 1.22 1.60 2.160 2.164	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.58 2.87 \$9.79 .46 1.75 1.22 1.70 2.170 2.165	\$6.103 .33 .40 .56 .86 1.14 1.43 2.02 2.31 2.61 2.81 2.81 2.77 7.77 7.77 2.76	\$6.38 .34 .40 .58 .88 .88 .1.19 1.50 1.80 2.41 2.72 3.03
Rate per CHARC Package of Package	100 lbs GES ON of 1 lb of 5 lbs of 5 lbs of 10 lbs of 10 lbs of 12 lbs of 10 lbs of 10 lbs of 20 lbs of 20 lbs of 30 lbs of 40 lbs GES ON of 1 lb of 10 lbs of 10 lbs of 10 lbs of 10 lbs of 20 lbs of 30 lbs of 30 lbs	\$3.74 .31 .34 .45 .62 .79 .97 .114 1.31 1.46 1.84 \$6.49 .34 .40 .58 .89 .89 .89 .89 .89 .89 .89 .8	31 34 45 63 80 98 1.15 1.33 1.51 1.68 \$6.54 34 40 .58 .90 1.21 1.53 1.51 2.16	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.36 1.73 1.90 \$6.87 .34 .41 .60 .93 1.26 1.59 1.22 2.25	31 35 .46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15 .34 .41 .41 .62 .96 .131 1.65 1.93	31 35 46 65 85 1.03 1.22 1.41 1.61 1.79 1.98 \$7.20 34 42 .62 .97 1.31 1.66 2.00 2.35	32 35 47 66 86 1.06 1.24 1.44 1.84 2.03 \$7.26 34 42 .63 .97 1.32 1.67 2.02 2.36	32 35 47 67 1.07 1.26 1.46 1.86 2.06 \$7.48 35 42 .64 .99 1.35 1.72 2.08 2.43	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13 \$7.70 .35 .42 .65 1.01 1.39 1.76 2.13 2.50	32 36 48 69 91 1.12 1.33 1.54 1.76 1.97 2.18 \$7.86 35 .65 1.03 1.41 1.79 2.17 2.55	32 36 48 70 91 1.13 1.34 1.56 1.77 1.99 2.90 \$8.03 35 43 .66 1.04 1.44 1.83 2.21	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52 35 44 .68 1.10 1.92 2.35 2.75	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63 1.153 1.95 2.36 2.78	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .70 1.12 1.55 1.98 2.43 2.23 2.23 2.23 2.23 2.30 2.30 2.30 2.30 3.00 3.00	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .45 .70 1.14 2.41 2.41 2.88	\$5.50 .33 .37 .54 .79 1.06 1.32 2.15 8.1.84 2.10 2.36 2.63 \$9.46 .74 1.19 1.65 2.11 2.57 3.02	\$5,88 .38 .38 .55 .84 1.11 1.40 1.67 1.96 2.25 2.79 \$9,51 .36 .46 .74 1.20 1.66 2.12 2.52 2.52 3.05	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69 1.97 2.25 2.54 2.83 \$9,73 .46 .75 1.22 1.69 2.17 2.63	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.58 2.87 \$9.79 .46 .75 1.22 1.70 2.18 2.63 3.12	\$6.10; .33 .40 .56 .86 .86 .14 1.73 2.02 2.31 2.61 2.89 \$10.23 .47 .77 1.26 .77 1.27 2.27	\$6.38 .34 .40 .58 .88 .88 .1.19 1.50 1.50 2.41 2.72 2.30
Rate per CHAR Package	100 lbs GES ON of 1 lb of 2 lbs of 5 lbs of 15 lbs of 15 lbs of 20 lbs of 22 lbs of 20 lbs of 23 lbs of 35 lbs f 45 lbs GES ON of 1 lb of 5 lbs of 1 lb of 5 lbs of 1 lb of 1 lbs of 1 lbs of 10 lbs of 10 lbs of 10 lbs of 30 lbs of 20 lbs of 25 lbs of 35 lbs of 35 lbs	\$3.74 .31 .34 .45 .62 .79 .97 .11 1.48 1.66 1.84 \$6.49 .34 .40 .58 .89 1.21 1.52 1.83	31 34 34 45 63 80 .98 1.15 1.33 1.51 1.68 1.86 \$6.54 34 .40 .58 .90 1.21 1.53 1.54 .86	\$3.90 .31 .35 .45 .64 .81 1.00 1.18 1.73 1.90 \$6.87 .34 .41 .60 .93 1.26 1.59 1.26 1.92	31 35 46 65 84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15 34 41 62 .96 1.31 1.65 1.99 2.38 2.68	31 35 46 65 1.03 1.22 1.41 1.61 1.79 \$7.20 \$7.20 34 42 .97 1.31 1.66 2.00	32 35 47 .66 1.06 1.25 1.44 1.84 1.84 2.03 \$7.26 34 .42 .63 .97 1.32 .97 1.32 2.02 2.02	32 35 47 67 1.07 1.26 1.46 1.86 2.06 \$7.48 2.42 .42 .42 .42 .99 1.35 1.75 1.75 1.75 2.08 2.43 2.79	.32 .35 .48 .68 .68 1.10 1.31 1.51 1.72 2.13 \$7.70 35 .42 .42 .65 1.01 1.39 1.76 2.13 2.50 2.87	32 36 48 69 91 1.12 1.33 1.54 1.76 2.18 \$7.86 .35 .43 .65 1.03 1.41 2.17 2.217 2.293	32 .36 .48 .70 .91 1.13 1.34 1.56 1.77 1.99 2.20 \$8.03 .43 .66 1.04 1.44 1.44 1.44 1.22 2.21 2.29	32 36 49 70 92 1.14 1.36 1.57 1.79 2.01 2.23 \$8.52 35 44 68 1.10 1.51 1.92 2.33	32 37 51 .75 .75 .8 1.22 1.45 1.69 1.92 2.17 2.17 2.17 2.11 1.53 1.95 2.36 2.78 3.20	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .47 1.12 1.55 1.98 2.41	\$5.22 .32 .37 .52 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .45 .70 1.14 1.51 1.14 1.51 2.44 2.88 3.31	\$5.50 .33 .37 .54 .79 1.06 1.32 1.58 1.84 2.10 2.36 2.63 .36 .46 .46 .41 1.19 1.65 2.11 2.57 3.02 3.49	\$5.88 .33 .38 .55 .84 1.11 1.40 1.67 1.96 2.23 2.52 2.79 \$9.51 .36 .46 .46 .41 1.20 1.66 2.12 2.58 3.05	\$5.94 .33 .38 .56 .84 1.12 1.49 1.97 2.25 2.54 2.83 \$9.73 .37 .46 .75 1.22 1.60 2.160 2.164	\$6.05 .33 .38 .56 .85 .1.14 .1.43 .1.72 .2.30 .2.58 .2.87 .46 .75 .75 .1.22 .1.70 .2.18 .2.65 .3.161	\$6.103 .33 .40 .56 .86 1.14 1.43 2.02 2.31 2.61 2.81 2.81 2.77 7.77 7.77 2.76	\$6.38 .34 .40 .58 .88 1.19 1.50 2.10 2.41 2.72 3.03
Rate per CHAR Package	100 lbs GES ON of 1 lb of 5 lbs of 5 lbs of 10 lbs of 10 lbs of 12 lbs of 10 lbs of 10 lbs of 20 lbs of 20 lbs of 30 lbs of 40 lbs GES ON of 1 lb of 10 lbs of 10 lbs of 10 lbs of 10 lbs of 20 lbs of 30 lbs of 30 lbs	\$3.74 .31 .34 .45 .79 .79 .114 1.31 1.48 1.66 1.66 1.58 .58 .89 1.21 1.52 1.83 1.83 1.83 1.83 1.84 .58	31 34 34 45 63 80 98 1.15 1.33 1.51 1.68 1.86 \$6.54 34 .40 .58 .90 1.21 1.51 1.51 1.52 1.54 1.54 1.55 1.55 1.86	\$3.90 .31 .35 .64 .81 1.00 1.18 1.34 1.73 1.90 \$6.87 .34 .41 .60 .93 1.26 1.92 2.25	31 35 .46 .65 .84 1.02 1.21 1.40 1.58 1.77 1.96 \$7.15 .34 .41 .41 .62 .96 .131 1.65 1.93	31 35 46 65 55 1.03 1.22 1.41 1.61 1.79 \$7.20 34 .42 .97 1.31 1.66 2.00 2.35 2.69	32 35 47 66 86 1.06 1.24 1.44 1.84 2.03 \$7.26 34 42 .63 .97 1.32 1.67 2.02 2.36	32 35 47 67 1.07 1.26 1.46 1.86 2.06 \$7.48 35 42 .64 .99 1.35 1.72 2.08 2.43	.32 .35 .48 .68 .89 1.10 1.31 1.51 1.72 1.92 2.13 \$7.70 .35 .42 .65 1.01 1.39 1.76 2.13 2.50	32 36 48 69 91 1.12 1.33 1.54 1.76 1.97 2.18 \$7.86 35 .65 1.03 1.41 1.79 2.17 2.55	32 36 48 70 91 1.13 1.34 1.56 1.77 1.99 2.90 \$8.03 35 43 .66 1.04 1.44 1.83 2.21	32 .36 .49 .70 .92 .1.14 .36 .1.57 .1.79 .2.01 .2.23 \$8.52 .44 .68 .1.10 .1.51 .1.92 .2.33 .2.75 .3.16	.32 .37 .51 .75 .98 1.22 1.45 1.69 1.92 2.17 2.40 \$8.63 1.153 1.95 2.36 2.78	\$5.17 .32 .37 .52 .76 1.01 1.25 1.50 1.74 1.99 2.23 2.47 \$8.80 .36 .44 .40 .112 1.55 1.50 1.99 2.41 2.41 2.41 2.41 2.41 2.41	\$5.22 .32 .77 1.01 1.26 1.51 1.76 2.00 2.25 2.50 \$8.96 .45 .70 1.14 1.57 2.44 2.88 3.31 3.75	\$5.50 .33 .37 .54 .79 1.06 1.32 2.15 8.1.84 2.10 2.36 2.63 \$9.46 .74 1.19 1.65 2.11 2.57 3.02	\$5,88 .38 .38 .55 .84 1.11 1.40 1.67 1.96 2.25 2.79 \$9,51 .36 .46 .74 1.20 1.66 2.12 2.52 2.52 3.05	\$5.94 .33 .38 .56 .84 1.12 1.41 1.69 1.97 2.25 2.54 2.83 .89,73 .37 .46 .75 1.22 1.69 2.164 3.38 3.3	\$6.05 .33 .38 .56 .85 1.14 1.43 1.72 2.00 2.58 2.87 \$9.79 .46 .75 1.22 1.70 2.18 2.63 3.12	\$6.10; .33 .40 .56 .56; .14 1.44 1.73 2.02 2.31 2.61 2.89 \$10.23 .47 .77 .77 .77 .77 .77 .77 .77	\$6.38 .34 .40 .58 .88 1.19 1.50 2.10 2.41 2.72 3.03

FREIGHT RATES

Table showing the freight rates per 100 pounds on goods shipped from Chicago to a number of cities in each state, these cities being used by the railroads as a basis for figuring rates for all the towns in the immediate vicinity of each city.

RAILROAD COMPANIES FIGURE FREIGHT RATES WITH THE LARGER CITIES, IN EACH STATE AS A BASIS. All other towns located in the same part of the state as any one of these cities take practically the same rate or only a few cents per 100 pounds more or less than the rate to the larger city. Please consult the following Table of Rates, considering it in connection with the classification of merchantiles, and you will be able to determine easily, almost exactly, what the freight will amount to on any goods. If your station is not named in this table, the rate to your station will be very nearly the same as the rate to the nearest city named, or you may ask your freight agent.

HOW TO SAVE ON FREIGHT CHARGES. In having goods shipped by freight, it pays you to make up an order of 100 pounds or more, because railroad companies usually charge as much for a shipment weighing less than 100 pounds as they do for one weighing 100 pounds. If there is no freight agent at your shipping point you must send money to prepay freight charges. If there is an agent you can pay the freight charges when shipment reaches you. It is necessary to prepay only when there is no agent at your station, WHEN YOU LEAVE THE METHOD OF SHIPMENT TO US we always choose the chapest method.

Baby Carriages (East and West)
Bleycles
Buggles (34-in, crates)
(East)
Buggles (54-in, crates)
(West and South)
Desks (East)
Milk Cans (East)
Stets, Children's (East and South)
Trunks (East)

Cligars
Clocks
Clothing
Concrete Block Machines (East)
Couches Couches Curtains Desks (West and South) Dressers (East and West) Dressers (Eas.

Dry Goods
Electrical Goods
Fire Arms
Forges (West)
Gasoline Engines (West)

CLASSIFICATION OF MERCHANDISE FOR FREIGHT

You will notice in the Freight Table below there are four different rates quoted to each city, first class, second class, third class and fourth of merchandise will take to your nearest city, we tell you be ret the kind of merchandise to be carried. In order, therefore, to give you an idea as to the rate which any kind of merchandise will take to your nearest city, we tell you be ret the kind of merchandise which takes the different classes of rates.

FIRST CLASS
Row Boats (East and South)

THREE TIMES FIRST CLASS
Row Boats (East and West)

Bed Chairs (East and West)

Bob Sleds (East)

Bob Sleds (East)

Bob Sleds (East)

Boots and Shoes
Browness (West)

Cameras (West)

DOUBLE FIRST CLASS
Buggles (54-in. crates) (East)

Cameras (West)

DOUBLE FIRST CLASS
Buggles (54-in. crates) (West and South)
Cameras (West)

Cameras (South)

Ited Chairs (East and South)

Cameras (West)

DOUBLE FIRST CLASS
Buggles (54-in. crates) (West and South)
Cameras (West)

Cameras (South)

Cameras (South)

Cameras (South)

Cameras (South)

Cameras (South)

Cameras (East and South)

Carpets

Chinaware (South)

Class

Cloiking

Cheapenth method of merchandise with take to each city, first class, second class, third class, as to the rate which any kind of merchandise will take to your nearest city, we tell you an idea as to the rate which any kind of merchandise will take to your nearest city, we tell you an idea as to the rate which any kind of merchandise will take to your nearest city, we tell you an idea as to the rate which an ndise to be carried. In order, therefore, to give you an idea as to the rate which any kind of merchandise will take to which takes the different classes of rates.

FIRST CLASS
Graphophones
Harness and Saddlery
Horse Clipping Machines
(South)
Ladders (West and South)
Ladders (West and South)
Ladders (West and South)
Lating
Mik (ans (West and South)
Mort's Chairs
Notions
Pictures
Planos and Organs
Pictures
Rubber Goods
Ruber Goods
Stationery
Tents
Tinware
Tinyare
Troys
Trunks (West and South)
Ladders (West and South)
Ladders (West and South)
Lating
Machines (West and South)
Land (West and South)
Land (West and South)
Mort is Chairs
Notions
Pictures
Rubber Goods
Stationery
Trunks (West and South)
Land (West and South)
Mik (Ans (West and South)
More Chiave (East and West)
Mik (Ans (West and South)
More Chiave (East and West)
Mik (Ans (West and South)
Mik (Ans (West and South)
Mik (Ans (West and South)
More Chiave (East (West)
Donorie Block Machines (West)
Crockery (West)
Milleys
Notions
Pictures
Rubber Goods
Rups
Stationery
Trunks (West and South)
Land (West and South)
Land (West)
Hardware (West and South)
Hardware (West)
Hardware (West and South)
Horse Clipping Machines
West)
Hand Traps
Section Culass
Magons, Children's (West)

Crockery (West)
Hand Washing Machines
West)
Hand Washing Machines
West and South)
Crockery (East R25)
Crockery (East R

HERE ARE THE RATES PER 100 POUNDS TO DIFFERENT TOWNS IN EACH STATE.

HERE ARE THE RATES PER 100 POUND									1 10	WINS IN EACH STAT	C.			
From Chicago to	ist Class Freight, per 100 Pounds.	2d Class Freight, per 100 Pounds.	3d Class Freight, per 100 Pounds.	4th Class Freight, per 100 Pounds.	From Chicago to	ist Class Freight, per 100 Pounds.	2d Class Freight, per 100 Pounds.	3d Class Freight, per 100 Pounds.	Freight, per 100 Pounds.	From Chicago to	Freight, per	2d Class Freight, per 100 Pounds.	3d Class Freight, per 100 Pounds.	4th Class Freight, per 100 Pounds.
ALABAMA— Birmingham Brewton Mobile Montgomery ARIZONA—	\$1.85 2.06 1.38 1.87	1.70 1.13	\$1.32 1.40 .94 1.40	1.16	KENTUCKY— Frankfort Hopkinsville Louisville Morehead LOUISIANA—	\$0.92 1.00 .67 1.15	\$0.78 .82 .57 .96	\$0.64 .69 .45 .75	\$0.50 .58 .34 .56	NORTH DAKOTA— Bismarck Fargo Grand Forks Minot Williston	\$2.00 1.47 1.55 2.19 2.49	\$1.69 1.24 1.30 1.87 2.08	\$1.34 .97 1.04 1.50 1.70	\$0.96 .68 .73 1.09 1.24
Phoenix Tucson	3.63 3.63	3.14	2.62 2.62		Lake Charles New Orleans Shreveport	1.38 1.82	1.13 1.53	.94 1.25	1.15 .73 1.07	OHIO— Cincinnati Columbus Toledo	.64 .67 .61	.55 .57 .52	.43 .45 .41	.32 .33 .31
Arkansas Ciby Fort Smith Hot Springs Little Rock	1.50 1.63 1.94 1.50		.97 1.09 1.32 .97	.74 .87 1.02	Bangor	1.22 1.09	1.07	.72	.58	OKLAHOMA— Oklahoma City	1.88	1.62	1.34	
Texarkana	1.84	1.59	1.35 3.07	1.20	Boston MICHIGAN— Bessemer	.82	.69	.82 .55 .43	.58	Portland PENNSYLVANIA— Harrisburg	1.09	3.69	3.07 .72 .73	2.59
Los Angeles San Francisco COLORADO—	4.25 4.25 2.25	3,69	3.07 3.07 1.38	2.59 2.59 2.59 1.07	Detroit	.63 .59 .77	.54 .50 .66	.52	.32 .30 .39	Philadelphia Pittsburgh RHODE ISLAND— Providence	1.10 .78	.97 .66	.52	.50 .40
Denver Durango Grand Junction Julesburg	4.00 3.32 2.10	3.38 2.79 1.77	2.69 2.32 1.34	2.01 1.89 1.07	Aitkin Crookston Duluth Grand Rapids	1.16 1.49 .82 1.23	.98 1.24 .69 1.03	.78 1.00 .55 .83 .50 .42	.53 .68 .35 .55 .32 .29	Charleston Greenville	1.83 1.95	1.55 1.73	1.37 1.48	1.20 1.18
Leadville CONNECTICUT— Hartford DELAWARE—	3.32 1.22		.82	.58	Minneapolis	1.23 .75 .63	.63 .53		.32	Sumter	1.98 1.43 2.43	1.73 1.19 2.03	1.48 .84 1.69	1.18 .63 1.38
Dover	1.13 1.09	1.00 .95	.77 .72	.54	Hattlesburg Jackson Natchez MISSOURI—	1.62 1.58 1.38	1.37 1.33 1.13	1.17 1.13 .94	.95 .73	Sioux Falls	1.04 1.20	.85 1.03	.59	.43
Jacksonville Miami Pensacola	3.04	2.64	1.37 2.33 .94	1.20 2.08 .73	Kansas City St. Louis. Springfield MONTANA—	1.00 .57 1.03	.82 .47 .90	.57 .36 .63	.40 .29 .47	Jackson Knoxville Memphis Nashville	1.33 1.59 1.07 1,23	1.09 1.37 .82 1.03	.89 1.14 .69 .82	.73 .92 .54
Tallahassee Tampa GEORGIA—	2.48 2.45	2.14 2.09	1.84 1.79 1.44	1.49 1.60	Billings	3.13 2.82 3.13	2.62 2.40 2.68 2.83	2.12 1.94 2.18	1.70 1.48 1.70 1.87	TEXAS— El Paso Fort Worth Houston	2.75 2.09 2.09	2.33 1.77 1.77	1.90 1.45 1.45	1.63 1.33 1.33
Atlanta	1.98 1.83	1.70 1.55 2.00	1.44 1.37 1.77	1.17 1.20	Helena Kalispell Miles City NEBRASKA—	3.32 3.44 2.82	2.94 2.40	2.32 2.42 1.94	1.97 1.48	UTAH— Marysvale Salt Lake City	3.94 3.32	3.39 2.79	2.89 2.32	2.42 1.87
Boise Pocatello	3.33	3.02 2.79	2.50 2.32	2.07 1.87	Lincoln North Platte Omaha NEVADA—	1.07 1.95 1.00	.88 1.63 .82	.62 1.24 .57	.45 .98 .40	VERMONT— Montpelier VIRGINIA— Marion	,1.22 1,24	1.07 1.08	.82	.58
Cairo	.59 .27 .48 .48	.48 .22 .38 .40	.39 .19 .29 .30	.30 .19 .24 .25	Austin Carson City NEW HAMPSHIRE— Concord	4.57 3.94 1.22	4.10 3.46 1.07	3.62 2.93	3.02 2.51	Richmond	1.09 1.49 4.25	.95 1.25 3.69	.72 .99 3.07	.49 .74 2.59
INDIANA— Evansville Fort Wayne	.64 .51 .58 .60	.52	.43 .34 .38 .40	.33	Atlantic City Trenton	1.19 1.13	1.05	.82 .75	.59	Spokane	3.63	3.14	2.62	2.19
Indianapolis Richmond South Bend IOWA—	.43	.37	.28	.29 .30 .22	Santa Fe	3.63 2.75 3.25	3.14 2.33 2.77	2.62 1.88 2.28	2.19 1.57 1.95	Elkins Wheeling WISCONSIN— Ashland	.90 .78.	.66 .69	.60 .52	.42 .39
Des Moines Fort Dodge Sioux City KANSAS—	1.00	.82	.45 .48 .57	.34 .37 .40	NEW YORK— Albany Buffalo New York	1.08 .78 1,13	.95 .66	.72 .52	.51 .39 .53	La Crosse	.63 .49 .54 .38	.53 .43 .45 .32	.42 .33 .37 .25	.35 .29 .23 .29 .19
Dodge City	$\begin{bmatrix} 1.82 \\ 1.00 \end{bmatrix}$	1.53 .82	1.35 1.19 .57 .74	1.04 .96 .40 .54	NORTH CAROLINA— Asheville	1.82 1.67	.99 .79 1.60 1.44		1.07	WYOMING— Cheyenne Green River	2.25 3.19 3.50	1.82 2.69 2.92	1.38	1.07 1.79
Toreka		1.39	1.08	.82	Raleigh	1.67	1.44		.84	Lander Sheridan	3.13	2.62	2.32 2.12	1.85 1.70

	A PAGE		TALL PARTY		PAGE
	•		INDEX		Steam Whistles
	Air Cocks	v .	INDLA		stock and Dies; Pump Repair-
- 1	Altitude Gauges				ers' 26
. !	Angle Valves 24	Closet Seats and Covers 17	Glass Tubes, Water Gauge 24	Pipe Holders33	Stock Sprayers34-35 Stools, Bath18
- 1	Asbestos Cement22, 40	Closet Tanks, Water 17	Gouges, Wood	Pipe Hydrants	Stools, Bath 18 Stops, Water Pipe 24 Stop Cocks 24
- {	Asbestos Lead Joint Runners 21 Asbestos Paper 40	Closet Traps	Governors	Pipe Increasers	Stop Cock Boxes 20
i	Asbestos Paste	Clothes Posts	Graphite	Pipe Reducers20, 23 Pipe Rests20	Storage Tanks
- 1	Asbestos Pipe Covering 22	Coat Hooks	Grease Traps	Pipe Strainers	Strainers, Spraying
	Augers, Spiral Earth 33	Cocks, Air		Pipe Straps	Strap Iron 22
	Automatic Injectors 25	Cocks, Basin	н	Pipe Threading Dies and Stocks 26 Pipe Tongs	
	A CONTRACTOR OF THE PARTY OF TH	Cocks, Bath		Pipe Vises	T
*	В	Cocks, Sill 19	Heaters, Gas, Gasoline, Water. 28	Pipeless Furnaces. 39 Plant Sprayers. 34-35	T Branches, Pipe 20
	Balls, Rubber, Fuller Bibb 19	Cocks, Steam	Heaters, Tank. 28 Heating Systems. 38-41 Hooks, Bathroom. 18	Plates, Celling, Floor, 41	Tanks, Expansion 41 Tanks, Hot Water 21
	Ball Cocks	Comb and Brush Trays 13	Hooks, Shave 21	Pliers	Tanks, Hot Water
	Ball Valves, Rubber 17	Compressed Air Sprayers 25	Hoppers, Slop	Plugs, Cast Iron 23	Tanks, Water Closet
	Bars, Towel 18	Conductors, Water	Hoppers, Water Closet.	Plugs, Drift. 21 Plumbers' Solder. 21	Tank Heaters 28
	Basin Cocks	Couplings, Iron	Hot Air Furnaces38-40	Plumbers' Tools21, 26-27 Plunger Leathers33	Tank Pipe Connections 36 Tank Pumps
ı	Basin Supply Pipes	Couplings, Pump Tubing	Hot Water Boilers	Pneumatic Tank Outfits2-7 Points, Drive Well33	Taps, Pipe. 26 Tap Borers. 21
- 1	Basin Tees 23	Covers, Tank	Hydrants	Pop Valves. 24 Pots, Melting, Plumbers'. 27	Tees, Iron Pipe
- 1	Basin Traps21-22	Crosses, Pipe	Hydrant Cocks. 24 Hydrant Drills. 33	Pots, Melting, Plambers' 27 Pouring Ladles	Thermometers, Hot Water
ı	Bath Cocks	Cups, Oil	Hydraulic Rams	Power Sprayers 34-35	Tile, Floor and Wall 37
-1	Bath Stools	Cutters, Glass, Gauge 24 Cutters, Pipe 25		Power Sprayers. 34-35 Pumps 7, 29-33 Pumps, Barrel. 32	Tinners' Furnaces
- 1	Bath Supply Pipes 22	Cylinders, Pump, Well 33	I	Pumps Chain 39	Tombstones 42
1	Bath Tubs 11	Cylinders, Seating Tools 33	T	Pumps, Diaphragm 31 Pumps, Force, Hand 32 Pumps, Force, Power 7, 31-33	Tongs, Clinker
1	Bath Tub Mats	_ = =	Increasers, Pipe	Pumps, Force, Power7, 31-33	
3	Bath Tub Plugs	D	Insecticide Sprayers34-35 Inspirators	Pumps, Jet. 25 Pumps, Rotary. 32	Tools, Cylinder Seating
1	Bath Waste and Overflow 22	Dampers, Furnace Smoke Pipe 43	Inspirators	Pumps, Cleaning	
-	Bathroom Outfits 10	Diaphragm Pumps	non bon Tipo and Fittings.20, 23	Pumpe Chraving 24 25	Tools, Tinners'
1	Bathroom Trimmings18-19	Dies, Pipe Threading. 26 Disinfectant Sprayers 34-35		Pumps, Tank. 32 Pumps, Windmill 29-31 Pump and Sink Outfits 14-15	Torches, Blow, Brazing. 27 Towel Bars, Racks. 18 Traps, Plumbing. 20-22
	Beading Tools	Drains, Floor	J	Pump Buckets32	Traps, Plumbing
	Benders, Pipe	Drain Boards	Jaws, Vise	Pump Chain	Trays, Brush and Comb 18
- 1	Bibbs 19	Drainage Fittings, Soil Pipe 23	Jet Pumps. 25 Jetting Drills 33 Joint Runners. 21	Pump Heads Seating Tools 33	Trays, Soap
	Bibb Seat Dressers	Dressers, Bibb Seat	Joint Runners 21	Pump Leathers 33 Pump Repairers Tools 25-27, 33 Pump Rods and Couplings 33 Pump Tubing 31-32	Tubs, Laundry. 19 Tubes, Glass, Water Gauge. 24
- {	Blast Furnaces	Drift Plugs 21		Pump Rods and Couplings 33	Tube Expanders
	Boilers, Hot Water	Drills, Hydraulic, Jetting 33 Drills, Ratchet Twist 26	K	Pump Tubing31-32	Tubing, Pump
- 1	Boilers, Range 21	Drill Sleeves, Ratchet 26	Kitchen Sinks14-16		Tumbler Holders
-1	Boilers, Steam	Drinking Fountains		R,	Twist Drills
ı	Boiler Heaters, Range 28 Boiler Ratchets 25	Driving Caps, Pipe33	L		-
- {	Boiler Tube Beaders	Duster Sprayers		Radiators	U
1	Borers, Tap 21	Duster opragers	Laundry Tubs	Radiator Elbows. 41 Radiator Valves. 41	Unions, Brass Soldering 21
ı	Bowls, Closet	E	Laundry Tubs 19 Laundry Tub Faucets 19 Laundry Tub Tees 23	Rams Hydraulic 33	Unions, Flange
- 1	Bowls, Lavatory, Wash12-13 Boxwood Dressers	E	Lavatories	Range Boilers	Urinals
- 1	Brackets, Sink	Ejectors	Lavatory Connections 22 Lavatory Traps	Ratchets, Boiler	
1	Branches, Iron 20	Elbows, Iron Pipe	Lead Bends	Ratchet Drill Sleeves. 26 Reamers, Pipe. 26	V
	Brass Ferrules 22	Elbows, Sprayer	Lead Ferrules 22	Reducers, Pipe. 20, 23 Registers, Ceiling, Floor. 39-40	Valves, Air
- }	Brazing Torches	Electric Thermostats	Lead Pipe and Fittings21-22	Register Dorders 40	Valves, Closet
- {	Brushes, Massage	Engine Lubricators 25	Lead Pipe Dressers	Relief Valves, Water 24 Robe Hooks	Valves, Poot. 33 Valves, Pop. Safety. 24
- 1	Brushes, Radiator	Expanders, Tube	Locknuts	Rods, Pump. 33 Rod Couplings. 33	Valves, Radiator
- 1	Brushes, Water Closet 13	Express Rates 43	Lubricating Graphite	Rotary Pumps 32	Valves, Steam Fitting24, 41 Valves, Well Pipe33
- !	Brush Attachment, Water Motor 22 Brush Trays	Extension Rods, Sprayer34-35 Extinguishers, Fire32	Daniel Diego Control of the Control	Rubber Balls, Ful'er Bibb 19 Rubber Ball Valves 17	Valvas Whietla
- }	Bubbling Fountains 12			Rubber Gaskets 23-24	Valve Leathers 33 Ventilating Caps 20 Vises, Pipe 26
ı	Buckets, Bucket Pump 32	F	M	Rubber Plugs, Basin	Vises, Pipe
- 1	Bucket Chain Pumps 32		Mats, Drain Board, Bath Tub.		
1	Bucket Pumps, Purifying 32 Burring Reamers 26	Faucets	15, 18 18 18 18 18 18 18 18	S	W
	Bushings, Brass Soldering 21	Fire Extinguishers 32	Mirrors, Bathroom		Wall Tile 37
1	Bushings, Iron	Fixtures, Toilet Paper 18	Motor Attachments, Brush 22	S Traps23-22 S Wrenches27	Waste, Cotton
1	The second second	Flanges, Floor 22 Flanges, Roof 20 Flange Unions 23		Safety Velves 24	Waste and Stop
-	C	Flange Unions 23 Floats, Tank 33 Float Valves 33	N	Sand Pumps. 33 Sanitary Branches. 20 Sanitary Crosses. 29	Water Closet Bowls
	Calking Oakum21	Floor Drains		Scrapers, Flue. 25 Screws, Pipe. 23 Seats, Bathtub. 18	Water Closet Brushes 18 Water Closet Tanks 17
1	Calking Tools21, 25	Floor Tile	Nipples, Iron	Seats, Bathtub	Water Conductors
	Caps, Driving, Pipe 33		Nuts, Lock	Seating Tools, Cylinder 33	Water Gauge Glass Tubes 24
1	Caps, Pipe	Force Pumps, Hand32	10000000	Seats, Closet. 17 Seating Tools, Cylinder. 33 Septile Tank Covers. 16 Service Cock Boxes. 20	Water Heaters. 28 Water Motors. 22
1	Caps, Ventilating	Force Pumps. 29-32 Force Pumps, Hand. 32 Force Pumps, Power. 7, 31-33 Fountains, Drinking. 12	0	Shave Hooks 21 Sheep Sprayers 34-35 Sheet Lead 21	Water Pipe and Fittings29, 23
1	Cast Iron Pipe Fittings20, 23		Oakum	Sheet Lead21	Water Tanks
-	Catch Basin Covers 16	Fuller Bibbs	Oakum 21 Offsets, Iron 20	Shelves, Glass	Waterworks
1	Cattle Sprayers34-35 Cement, Asbestos22, 40	Furnaces, Blast	Oil Cups 25	Shutoffs 35 Sill Cocks 19 Sinks 14-16	Well Boring Outfits
- 1	Cement, Graphite Pipe 23	Furnace Cement		Sinks	Well Cylinder Seating Tools. 33
	Cesspools	tings 40	P	Sink Backs	Well Points, Drive
-1	Chains, Pump		Paint Sprayers, Nozzle34-35	Sink Drain Boards. 16 Sink Traps. 21-22 Smoke Pipe and Fittings, Fur-	Whistles, Steam
-1	Chain Pumps, Bucket	G	Pig Lead	Smoke Pipe and Fittings, Furnace 40	Whitewash Nozzles
1	Chain Pump Buckets		Pipes, Basin and Bath Supply, 22	Slop Hoppers	Windmills
1	Chain Wrenches, Pipe 27	Galvanized Range Boilers 21 Galvanized Tanks 35	Pipe, Cast Iron	Soil Pipe and Fittings23	Windmill Towers 26
	Check Valves 24		Pipe, Soil	Solder, Plumbers 21 Soldering Bushings, Brass 21	Window Washing Machines34-35 Wiping Cloths, Plumbers'21 Wire Flue Brushes25
1	Chisels, Calking	Gas Fitters' Tools	1 Pipe. Furnace Smoke, and Fit-	Soldering Ninnles	Wire Flue Brushes
1	Circulators, Hot Water 41 Cistern Covers	Cas Pliers 27	tings	Soldering Unions 21 Sprays, Bath 18 Sprayers and Fittings 34-35	Wrenches, Chain. 27 Wrenches, Nut. 27 Wrenches, Pipe. 27 Wrenches, S. 27
. !	Cistern Pumps30-32	Gaskets, Rubber	Pipe Caps 23	Spraying Nozzies	Wrenches, Pipe
	Clamps, Hydrant	Gasoline Heaters, Water 28	Pipe Cement, Graphite 23	Spraying Hose34-35	
	Clevises, Pipe Lifting 33	Gauges Steam 24	Pipe Connections, Tank. 36 Pipe Couplings, Iron. 23 Pipe Covering. 22	Steam Cocks	Y
	Clinker Tongs	Gauges, Water	Pipe Cutters	Steam Fittings24-25, 41	Y Branches, Pipe 20
	Closet Bends	Glass Shelves	Pipe Cutters. 26 Pipe Fitters' Tools. 21, 26-27 Pipe Fittings. 19-25	Steam Fittings 24-25, 41 Steam Gauges 24 Steam Heating Systems 38, 41	Y Clean Outs
	Closet Bowls	Glass Towel Bars 18	Pipe Hangers 22	Steam Pipe, Wrought 23	Yekes, Shower Bath

